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THE MEDICAL RECORD.

A Semi-Monthly Journal of Medicine and Surgery.

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EDITED BY

GEORGE F. SHRADY, A.M., M.D.

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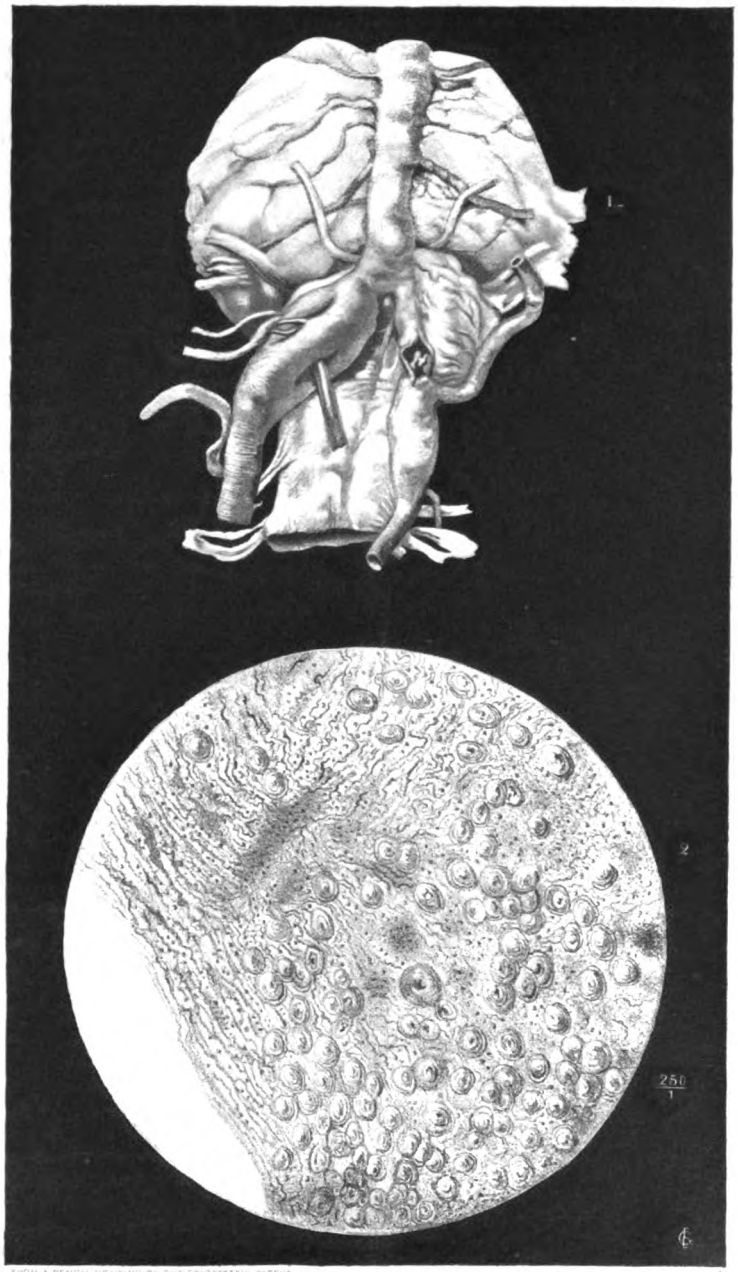

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A Semi-Monthly Journal of Medicine and Surgery.

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Original Communications.

SCLEROSIS OF BOTH THIRD ANTERIOR FRONTAL CONVOLUTIONS WITHOUT APHASIA.

BY M. GONZALEZ ECHEVERRIA, M.D.,

LATE PHYSICIAN-IN-CHIEF TO THE HOSPITAL FOR EPILEPTICS AND PARALYTICS, NEW YORK.

(From Notes by Dr. F. A. Castle, Assistant Physician.)

Epilepsy. Dysphagia and Paralysis of the tongue. No aphasia. Sudden death from hæmatorrhachis. Double aneurism of the vertebral arteries. Sclerosis of the brain, medulla oblongata and spinal cord. Degeneration of the ganglia and nerves connected with a herpetic eruption of the chest.

DENNIS D——, aged 67 years, native of Cork, Ireland; occupation clerk, died at the hospital on the night of May 24th, 1866, while straining at stool, a small quantity of blood coming from his mouth. He was from his youth subject to epileptic fits, and for months before his death, noticed a feeling of dizziness of the head upon attempting to walk, with difficulty to move or to protrude the tongue. The fits had decreased in frequency, but his condition growing worse on account of incapacity to move, he was obliged to keep in bed. His sleep was broken; the decubitus dorsal; expression of the face dull; pupils contracted readily; muco-purulent discharge from the conjunctivæ. Tongue clear, and there was difficulty in protruding it in a direct line; palate flabby; temperature of the skin normal; anorexia; bowels rather loose; no tenderness of abdomen; respiration slow; pulse eighty, irregular and small; heart enlarged, with rough aortic direct murmur; urine normal; has never had syphilis, but gonorrhœa three or four times. There is an eruption of herpes zoster, like a girdle, around the base of the breast. The mind to the time of death was clear, though at moments clouded by a kind of confusion or absence in his ideas. At other times, he would lose the power of articulating, and had to whisper words with a considerable effort. This was accompanied with dysphagia; otherwise he could talk without impediment and express himself with ease about his ailment.

As above stated, he was unable to move from partial paralysis of the limbs, which were stiff and rigid. He also complained of pain, with occasional cramps, or jerking of the lower extremities; no impairment of sensation, excepting numbness in the feet; sensory impressions seemed, however, distinctly perceived. I visited him the afternoon before his death; he did not then show signs of aphasia.

Autopsy.—Heart enlarged, atheromatous deposits in the valves; arch of aorta extensively changed, with large calcareous and atheromatous patches; the other viscera displayed nothing remarkable. On removing the scalp and membranes, the brain appeared dry and bloodless in its upper surface; at the base, the pons varolii was covered by a film of coagulated blood, extending into the spinal canal, and the medulla and cord imbedded in a mass of grumous blood, proceeding from the rupture of an aneurism of the right vertebral artery, near its junction with the left to form the basilar trunk. The left artery was equally distended; a clot plugging the calibre of both vessels at their fusion, being the source of the aneurismal distention (Fig. 1). These arteries, and those at the base of the brain, were in a state of fatty and atheromatous degeneration.

The right vertebral artery, for a short distance divided in two branches, soon reunited in a single trunk, before giving origin to the basilar. The spinal accessory nerve passed through this dichotomic division, and the roots of the glosso-pharyngeal, as well as those of the hypoglossus, were compressed by the aneurismal tumor (Fig. 1). This strange disposition accounts for the dysphagia and paralysis of the tongue.

The cortical substance of the brain, anæmic and with a yellow, lustrous color, had undergone a general change. The white substance was equally altered, and both corpora striata presented tracts of yellow softening, continuing downward into the central regions of the pons varolii. The brain tissue was in a general state of sclerosis, arrived to its highest degree in the superior and inferior marginal convolutions and along the fissure of Sylvius on either side. Under the microscope, the nervous elements appeared deficient, and replaced by a multiplication of connective cells and fibres.

In the medulla oblongata, the olivary bodies were principally involved by the sclerosis. Ganglionic cells, irregular and granular, with their nucleus scarcely distinguishable. The spinal cord, carefully examined in all its length, presented in the cervical and lumbar enlargements, many sections with the whole gray matter reduced to a gelatinous mass of nuclei, granular corpuscles and connective fibres, without nervous cells, and irregularly fused with the surrounding posterior columns. The anterior and lateral columns exhibited plates of amyloid degeneration—similar to that represented in Fig. 2, copied from another case—and alternating with regions quite uninjured in their structure. This amyloid degeneration could be distinctly followed up into the gray substance of the pons and the corpus restiforme of the corresponding side, and even into the peduncles of the cerebellum, although in this latter region the amyloid bodies considerably decreased in amount in the midst of granular corpuscles, connective elements, and sound fibres from the posterior median columns. As to the posterior columns, they were more generally altered at the cervical region, and in many places involving the very superficial fibres of the cord. The spinal ganglia and the cervical sympathetic displayed the same hypergenesis of connective elements, with the cells fatty and infiltrated with pigment. This pigment infiltration, and the connective elements, were most remarkable on the spinal ganglia connected with the fifth and sixth upper intercostal nerves, animating the cutaneous regions involved by the herpes zoster. The ganglion cells not only exhibited an unusual amount of pigment, masking their nucleus, but were besides in a fatty condition, manifested by their brilliant appearance. As to the nerves connected with the eruptive patches,

they had undergone a fatty degeneration of their primitive fibres, with the same rank growth of connective elements. The blood-vessels in the vicinity of these spots exhibited a marked amyloid degeneration.

It is worthy of note that, with the above local disorganization of the spinal gray substance, the patient did not complain of anæsthesia in any of the limbs. The case distinctly shows that lesion of the third left frontal convolution may occur without any loss or defect of speech, as already substantiated by other instances; finally, this rare example of hæmatorrachis and aneurism in both vertebral arteries also confirms the manner in which the dilatation may be occasioned by plugging of the vessel, as first explained by Dr. J. W. Ogle, and exhibited by the photograph of the specimen reproduced in Fig. 1. A condition identical with that here represented may exist in cases of epilepsy, in the small cerebral capillaries, where minute granules, either carried by the blood-current, or generated in situ, give rise to their obliteration and dilatation.

A NEW METHOD FOR TREATING FRACTURE OF THE CLAVICLE.

By B. F. POPE, M.D.,

ASSISTANT SURGEON U. S. ARMY; POST SURGEON, CAMP HALLECK, NEVADA.

In the treatment of all fractures at the present period of surgical advancement, simplicity of appliance is justly held by our most eminent and experienced surgeons to produce the most favorable results. Particularly is this the case in the modern methods for treating fracture of the clavicle. Indeed, so far has this simplicity been carried by many surgeons, that all appliances have been discarded, and the patient permitted to make the best recovery possible during a protracted and irksome confinement upon his back in bed.

It is needless to point to the numerous cases of failure that are constantly presented to our eyes, to prove to ourselves how entirely unsatisfactory merely palliative measures are in preventing the unsightly deformities that too often succeed this injury; and the urgency of the demand for some method which will be productive of better results.

The following manner of treating fracture of the clavicle has been employed by the writer for some time past, and with such uniform success that he cannot forbear calling the attention of the profession to it, in the hope that a more extended trial may prove its intrinsic merit.

The usual indications for bringing into coaptation the extremities of the fractured bone are, viz.: To draw the shoulders outwards, backwards, and upwards, and retain them in that position. Possibly, few have failed to notice with what comparative ease even the patient himself can accomplish this by using the trapezius muscle, and the rhomboidei, major and minor; but unfortunately there is a point at which muscular force becomes exhausted, and the shoulder relapses into its former malposition.

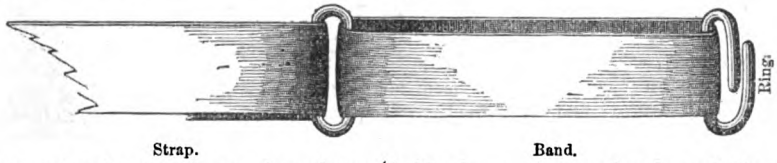
With the view of imitating nature, I have endeavored to devise a trapezius muscle which will not tire. To this end I make use of the "Elastic Adhesive Straps," which I construct and apply in the following manner:

Take an ordinary stout rubber band, such as is used in binding letter packages, and which can be purchased at any stationer's; and through this loop two iron wire rings, oblong in shape, with overlapping extremities. To each of these rings attach a broad adhesive strap, simply folding one end of the strap upon itself while heated, in order to make it adhere. The strap should be from seven to nine inches long and two inches in width at its distal extremity. In twenty minutes one can make

Front Application of Straps, Pad, and Roller Bandage.

Back Arrangement of Straps.

Sheet Drawing.



Strap. Band.

half-a-dozen of these bands, and then apply them as follows:

Bid the patient draw back his shoulder, and at the same time elevate the injured one. Should he be unable to do so, seize the shoulders with the hands; place your knee against his back, and use sufficient force to bring the extremities of the bone well into apposition. Apply one end of the warmed band well over the acromion process of the scapula; put the elastic to its full stretch, and then apply the other extremity immediately beneath the axilla of the opposite side. The next band should be applied below the former, and the elastic being extended as in the former case, the opposite extremity will be fastened below the last. The third should be applied just above the insertion of the deltoid muscle; and the other extremity fastened

with the others in its regular order. A fourth may be applied below this, and the free extremity brought over the opposite shoulder. This serves to draw the injured shoulder backwards and upwards.

More elastic bands may be applied if necessary; but, ordinarily, I find that three or four will answer every purpose. Should the elastic prove weak, I put two or three on each set or rings.

It will readily be seen that the amount of force to be employed can easily be regulated by the number of elastic bands and the tension to which they are drawn.

In adjusting these straps, I endeavor to follow as nearly as possible the general direction of the fibres of the trapezius muscle. In conjunction with the above, I also employ a medium-sized axillary pad, and secure the arm to the side by a few turns of the broad roller; and over all, apply the three-cornered sheet bandage recommended by Markoe.

The special advantages claimed for this method of treatment are briefly as follows:

The dressing is extremely light and comfortable, as is unanimously acknowledged by my patients. It does not chafe, and admits of the fullest thoracic expansion. It leaves the uninjured arm complete freedom of motion, and withal, persistently and effectually holds the affected shoulder in the best position for gaining a proper and shapely union of the extremities of the fractured clavicle.

The accompanying diagram will serve to illustrate the construction of the "Elastic Adhesive Band" and its application.

In a subsequent paper it is my intention to speak of my method of treating fractures of the radius and ulna, in which a similar principle is involved.

DISLOCATION OF THE CRYSTALLINE LENS, AND ITS EFFECTS ON REFRACTION.

By HENRY D. NOYES, M.D.,
NEW YORK.

A man 45 years old, in a drunken brawl, received a blow with the fist on the left eye. About 3 weeks after it happened, he came to the N. Y. Eye and Ear Infirmary. He was examined by Dr. Watts, and his crystalline lens found to have been displaced downward, vertically, so that its upper rim rose above the enlarged pupil. A solution of atropia had been put into the eye to facilitate the ophthalmoscopic examination. No other injury was discerned, and the eye was but moderately injected. About a week after he said that his sight had greatly improved. The crystalline was now seen to have come forward into the anterior chamber. This fact was easily known by the way in which the iris was pressed back, and by the brilliant border of the lens, where a total reflection of sight occurs. The lens had a faint amber tinge, appropriate to the age of the person, but was perfectly transparent. It was of course still inclosed in its capsule.

The change of position had been brought about by a vigorous fit of sneezing. He had taken a pinch of "catarrh snuff," and sneezed seven or eight times the night after the atropine was dropped into the eye. Immediately afterward he found his sight improved.

The lens being in this position, I at once wished to ascertain what effect would ensue in the refraction. I knew that the nodal point must be brought forward, and if the man were emmetropic he must now be myopic. The interesting point was to ascertain the degree of myopia. Inasmuch, too, as the lens is less in bulk than the capacity of the anterior chamber, its axis would be below the visual axis, because the upper edge of the lens was lower than the periphery of the iris, and of course the cornea and lens were not "centred," as the opticians say. On this account there would be astigmatism. The examination was made by Dr. Schiff, and afterward verified by myself. The good eye was found to have hypermetropia manifesta $\frac{1}{18}$—the damaged eye to have myopia $\frac{1}{9}$, with myopic astigmatism $\frac{1}{24}$.

The formulæ are as follows:

Right Hm + $\frac{1}{18}$, V, = $\frac{20}{20}$.

Left M—$\frac{1}{9}$ Ast—$\frac{1}{24}$ axis 30° (Javal) V=$\frac{20}{70}$.

It follows from this that the displacement of the lens into the anterior chamber causes a myopia about $\frac{1}{6}$—it being assumed that the damaged eye originally possessed a hyperopia the same as the other.

The results found by trial glasses were afterward verified by the ophthalmoscope in the upright image, and proved to be in accord.

The man was unwilling to have the eye operated on, and I did not feel disposed to urge its being done, because he was so comfortable. Should the lens become opaque, as it is likely to do, he will probably be willing to have it removed.

Mere displacement of the lens may give rise to a variety of errors of refraction. If it be partially luxated and stand obliquely behind the pupil, or if decentred, it produces simple astigmatism. If it descend so as to permit light to fall through its rim, and also to enter the pupil without traversing the lens, there will be astigmatism for part of the pupil, and extreme hypermetropia for the remaining part of the pupil. If the lens be wholly out of the pupil, as in the common operations for cataract, there will be extreme hypermetropia. Again, as in the case described, if the lens be in front of the iris, the patient will be both myopic and astigmatic, or will be merely myopic if the lens be correctly centred.

65 Madison Avenue.

TWENTY CASES OF INTERMITTENT FEVER

TREATED WITH THE SULPHITE OF SODA AND THE SULPHITE OF AMMONIA.

By Wm. J. CHANDLER., M. D.,
HOUSE-PHYSICIAN, BELLEVUE HOSPITAL.

The following cases of intermittent fever are taken from the service of Dr. Austin Flint, and illustrate certain points regarding the use of the sulphites of soda and ammonia in this disease:

Case I.—J. D., æt. 12, admitted September 23. Patient states that he has had a chill daily for the past three days. The sulphite of soda was ordered in one drachm doses three times a day. On the following day it was increased to one ounce daily in divided doses. Oct. 2. Has had a chill every day thus far. Oct. 3. Had no chill to-day. Oct. 4. The paroxysm occurred as usual. Oct. 10. A chill every second day since last report until to-day, when he had none. Oct. 11. No chill since Oct. 8. Patient was unwilling to remain longer in the hospital, and the further progress of the case we are unable to state. It is worthy of note that for the last six days of his stay in the hospital he vomited his medicine about five minutes after it had been swallowed, so that the amelioration of his symptoms was due rather to improved diet and external surroundings than to the effect of medicine which he had taken.

Case II.—Ann Hall, æt. 44, admitted September 17, 1868. Type of the disease, quotidian. Duration of the disease previous to admission, one week.

This patient had taken a large dose of calomel two days previous to admission; and when she entered the hospital she was suffering from ptyalism, and was much

exhausted by the daily recurrence of the chills. It was thought best, however, to try the remedy in a severe case, and she was accordingly ordered forty grains three times a day. Sept. 18. Had a chill as usual. Dose increased to sixty grains. Sept. 24. The chills have recurred daily since the 18th, and are more severe than at first. Increased the dose to one ounce in divided doses during the day. Oct. 3. No chill. Oct. 4. Severe chill. Oct. 5. No chill. Oct. 9. Severe chills every day since the 5th; she has now a profuse diarrhœa, and is so weak that it was deemed advisable to discontinue the sulphite. She was accordingly ordered twenty grains of the sulphate of quinine, to be taken two hours before the next expected chill. Oct. 10. Only a very light chill to-day. Ordered two grains of quinine in solution three times a day. Oct. 29. Patient has had no chill since last report, and is now very much improved.

Case III.—Ann C., æt. 54, admitted Sept. 20, 1868. Type of the disease, quotidian. Duration of disease, previous to admission, two weeks.

This patient was put upon two-drachm doses of the sulphite of soda, repeated three times a day. This was afterwards increased to one ounce daily in divided doses. At the expiration of ten days there was no change; the chills, fever, and sweats followed the same course as before. She was therefore placed on quinine in appropriate doses; the chills were checked immediately, and she was discharged well on Oct. 10.

Cases V. & VI. are so similar to the above, that it would be a mere repetition to record them.

Case VII.—James F., æt. 29, admitted Sept. 28, 1868. Type of the disease, quotidian. Duration of the disease previous to admission, one week. In this case the symptoms were never very severe. It was one of the milder forms of malarial poisoning. The sulphite of soda (two-drachm doses) was given three times a day for ten days, without any perceptible effect. The sulphite of ammonia in the same doses was then substituted. With the exception of a diarrhœa, and nausea after taking the medicine, the patient remained as before for five days.

On the sixth day the paroxysm was omitted, with the exception of a slight febrile movement in the afternoon, and thereafter the type of the disease was altered; that is, it was changed from a quotidian to a tertian. The patient remained under observation for ten days longer, and was discharged at his own request. The paroxysms recurred regularly every second day, and were of the same mild character as at first.

Case VIII.—Thomas C., æt. 15, admitted Oct. 3. The paroxysms had occurred daily for the past two weeks, and the face wore the dirty-yellowish hue, so common in intermittent fever. He was put upon the same treatment as the preceding case.

Oct. 10. Discharged. He has had a chill every day since admission, but the last has been less severe than the first. This patient was not under observation long enough for us to state whether he ultimately recovered, but it was evident that the paroxysms were shorter and less severe when he went out than when he came in.

Case IX.—Sam. Carey, æt. 15, admitted Oct. 3. Patient states that one week ago he began to have the "shakes," and has had them on each alternate day ever since. The same treatment was followed as in the preceding cases. After the second day the medicine was vomited almost immediately after being taken. The dose was lessened, but the stomach could not retain it. He was discharged at his own request, six days after admission. The only change noticed was that the paroxysms were shorter.

Case X.—Mathew Stewart, æt. 29, admitted Oct. 5, 1868. Patient states that he has had a chill every day for the last three weeks. The sulphite of soda was employed in his case for one week without seeming to do any good. It was then changed to the sulphite of ammonia, which was continued for four days without any result, further than to produce a troublesome diarrhœa. Oct. 16. Patient was put upon quinine, and the chills were immediately stopped. He was discharged Oct. 30, entirely well.

Cases XI. & XII. are similar to the above.

Case XIII.—Emma Thompson, æt. 38, admitted Oct. 5. She had had chills of the tertian variety for two weeks previous to admission, and under the use of the sulphite of soda they continued for one week. At the end of that time she was put upon the sulphite of ammonia (one ounce, in divided doses, during the day). This treatment was continued for five days without in the least modifying the disease. Her case was then complicated by the occurrence of uræmic coma, and she died two days afterward. Her urine furnished abundant evidence of Bright's disease.

In this case vomiting and frequent watery stools were produced by the sulphites of soda and ammonia.

Case XIV.—Melinda Melvin, æt. 24, admitted Oct. 7. One week before admission the patient states she had her first attack of intermittent fever. The type of the fever was tertian, and the paroxysms were not very severe.

For the first three days the sulphite of soda was used, and after that the sulphite of ammonia. The chills recurred with diminishing intensity till Oct. 14, and since that time she has had none. She was discharged Oct. 27. In this case diarrhœa and vomiting were produced by the sulphites.

Case XV.—Dan Sullivan, æt. 29, admitted Oct. 11, 1868. Two days previous to admission he had a chill, and has had one every day since. On admission he was ordered two drachms and a half of the sulphite of ammonia three times a day. Oct. 12. A severe chill to-day. Oct. 13. Chill to-day, but less severe. Oct. 14. A slight chill at 1:00 P. M. The medicine is not retained by the stomach longer than ten minutes. The dose was lessened. Oct. 17. He has had no paroxysm since Oct. 14, and was to-day discharged at his own request. He left the hospital very much improved in his general condition, but it is quite probable (considering his mode of living, a day-laborer), that the paroxysms returned. However, as we have no evidence to that effect, we shall consider the case as one in which the sulphite of ammonia arrested the paroxysms.

Case XVI.—Julia Sullivan, æt. 40, admitted Oct. 12. This patient had had chills at irregular intervals for three weeks previous to admission. The last three were regular and of the tertian variety. She was much emaciated and quite feeble. Ordered ammon. sulphit., two and a half drachms three times a day. Oct. 13. Had a pretty severe chill to-day. Oct. 14. No chill. Bowels rather loose. Oct. 15. Slight chill. Profuse sweats. Vomits her medicine. Suffers considerably from griping pains in abdomen, and from frequent watery stools. The dose of the sulphite was lessened. Ordered a powder of bismuth, kino, and opium.

Evening.—The diarrhœa still continuing, the sulphite was stopped, and quinine ordered in its place. Oct. 16. Slight chill to-day. Oct. 25. Diarrhœa has nearly stopped; no chill since the 16th. Patient is very feeble and much prostrated by the continuance of the diarrhœa. Nov. 1. Patient is still in bed, although the bowels have returned to their normal condition, and she has had no chill since last report.

Case XVII.—Mary G., æt. 27, admitted Oct. 13.

Type of disease, quotidian. Duration, three weeks. Treatment ammon. sulphit. 3 ijss., ter in die. Oct. 16. Has had a chill every day since admission, complains of vomiting after taking the medicine, and has a diarrhœa. Oct. 17. Had a very severe chill to-day. She was put on quinine in ten-grain doses. Oct. 30. No chill since last report. Patient quickly recovered from the diarrhœa after the sulphite was discontinued.

Case XVIII.—Alexander M., æt. 50, admitted Oct. 19. Type of disease, quotidian and tertian. Duration, three weeks. Treatment, ammon. sulphit. 3 ijss., ter in die. Oct. 20. No chill; vomits his medicine. Lessened the dose one-half, and ordered that it be taken with the meals. Oct. 21. Severe chill. Retains the medicine. Oct. 23. Slight chill. Oct. 25. A very severe chill. Has some diarrhœa. Oct. 27. A chill to-day as usual. Discontinued the sulphite, and ordered quinine. Nov. 4. No chill since Oct. 27. Patient discharged.

Case XIX.—Theodore K., æt. 19, admitted Oct. 20, 1868. Type of disease, quotidian. Duration, one week. Treatment, ammon. sulphit. 3 ijss. t. i. d. Oct. 23. A chill every day since admission. Emesis and diarrhœa are beginning. Oct. 26. The chills not having been checked by the sulphite, quinine was ordered. Oct. 27. The patient urged very strongly to be discharged, and the further progress of the case is not known.

Case XX.—Michael D., æt. 23, admitted Oct. 24. Type of disease, quotidian. Duration, two weeks. Treatment sulphite of soda, an ounce daily, in divided doses. Oct. 25. Patient had a pretty severe chill to-day followed by fever and sweating. The whole paroxysm lasted over a space of eight hours. Oct. 26. Another paroxysm to day. The sulphite is beginning to produce irritation of the alimentary canal, as shown by nausea and several passages from the bowels during the day. Oct. 27. Much the same as yesterday. A chill at the usual time. Oct. 28. The paroxysm to-day was more severe than any of the preceding. Instead of nausea, the medicine now produces a powerful emesis, and the passages from the bowels are increased in number to about twenty daily. Under these circumstances it was thought best to discontinue the sulphite and employ quinine. Oct. 29. A very slight chill; patient has taken sixty grains of quinine since yesterday. The vomiting has ceased, though the bowels are still quite loose. Nov. 4. Patient has had no chill since the last report. He is now quite well and walking about the ward.

The history of each of these cases has been made as brief as possible, and many important and interesting circumstances (temperature of the different stages, chemical and microscopical appearances of the urine, condition of the blood, enlargement of the spleen, &c., &c.), have been purposely omitted, the object of the paper being to illustrate a point in therapeutics, rather than the symptomatology or pathology.

We divide the above cases into three classes. 1st. Those in which the paroxysms were arrested as permanently as could have been done by quinine. 2d. Those in which the paroxysms continued, but were shorter and less severe, or recurred at longer intervals. 3d. Those in which the paroxysms were neither arrested nor shortened, but returned regularly and with their accustomed severity.

The following table exhibits the number in each of these classes:

No. of cases cured	2
" " " improved	4
" " " neither cured nor improved	14
Total	20

In crediting the sulphites with two cures we have perhaps acted generously rather than justly. The tendency of intermittent fever to self-limitation, and the benefit produced in all cases by improved diet and a change of air have not been forgotten, but we desired to represent the case as favorably as possible, and give the sulphites credit for all that they could do. And this is all that the sulphite can accomplish. But an agent which can cure only one case of intermittent fever out of ten will not come into very general use at present.

The following conclusions are drawn from the above cases:

1st. That in a few cases the paroxysms of intermittent fever are relieved and possibly arrested by the sulphite of soda or sulphite of ammonia.

2d. That in the large majority of cases these remedies fail entirely to arrest the paroxysms, or to lessen either their severity or frequency.

3d. That these remedies require to be given in large doses for a length of time to effect any appreciable improvement.

4th. That, when given in doses sufficient to modify or arrest the paroxysms, they produce considerable irritation of the stomach and intestinal canal.

5th. That as remedies for intermittent fever they are in every respect vastly inferior to quinine.

December, 1868.

Original Lectures.

ON DELIRIUM TREMENS.

DELIVERED AT THE NEW YORK HOSPITAL, N. Y.,

By GOUVERNEUR M. SMITH, M.D.,

ATTENDING PHYSICIAN.

Gentlemen—Delirium tremens, as you are doubtless aware, is a malady induced by the excessive use of alcoholic stimulants. Patients suffering with the disease require particular supervision, and in this hospital it is customary to treat such in a special ward, guarded with barred windows and secured doors. Adjoining to and communicating with this is a smaller apartment, in which a maniacal case can be placed in solitary confinement, here to be tended as carefully as if in the larger room, but beyond the reach of injuring surrounding patients and of any means of self-destruction.

The extreme mental suffering experienced in the disease has led to its popular appellation, "the horrors." It would seem that the disorder could have hardly been known to the wise old Athenian dramatist, when he celebrated in verse the divine wines.

> "Straight to the brain all swift ascend,
> Drive out black thoughts, bright fancies lend,
> Glad the whole man—then pass away,
> Nor make to-morrow mourn *its* yesterday."

Singular to say, no description of the affliction occurs prior to the year 1800, though many sacred and profane authors refer to the properties of wine and the debasements of drunkenness. Were my remarks not designed to be practical, it might be interesting to pause for a moment and consider whether the disease probably appeared antecedent to the time mentioned, or whether it is an excrescence of the nineteenth century.

During the two months of my present attendance, twenty cases of delirium tremens, or of ebrietas bordering thereon, have been treated in these wards. The nativity of the patients was as follows: United States, eight; Ireland, eight; England, three; Scotland, one. Their

occupations were, mason, one; poultry-dealer, one; travelling agent, one; bookkeeper, one; tailor, one; clerk, one; merchant, one; pedlers, two; liquor dealers, two; seamen, five, and lawyers, four; nor were all these latter briefless barristers.

The average age of these patients was forty-four years. Two had been under treatment for the same affection several times in this hospital; several were habitual hard drinkers, others were unaccustomed to the use of liquor except occasionally. The average length of time they have remained in the house has been ten days. All have not required medical care for this period, most of the cases having promptly yielded to treatment; but a few have desired an asylum in which temporarily to seclude themselves from the world and in several instances friends have desired to have them retained for a short season.

Delirium tremens, from the fact of its being induced by overwhelming doses of alcohol, has been denominated *acute alcoholism*. It is a disease of violent character, chiefly nervous, and is amenable to treatment.

Chronic alcoholism, induced by the long-continued and more moderate use of stimulants, is likewise manifested by nervous symptoms. These are less severe than in acute alcoholism, but are often accompanied by a train of morbid phenomena indicative of organic lesions in the lungs, liver, kidneys, heart, and arteries. No human power can reclaim structural degenerations, and consequently in such cases, death, though it may be temporarily postponed by the physician, cannot long be averted. Symptoms of delirium tremens are generally developed after a drunken debauch, of from four to seven days' duration. Having arrived at the incipiency of the disease, and dreading its further progress, patients are in doubt how to proceed to avoid full developments. Some on recovering tell us that they attribute their attack to the sudden abandonment of all stimulants; others state that it was induced by continuing, though moderately, their potations. If any means of prophylaxis is within their reach, total abstinence is of course the chief one. The stomach not unfrequently, early in the disease, becomes so irritable that it rejects the proffered liquors, and nature thus prevents greater toxæmia.

As the disease advances, the more remarkable symptoms are insomnolency, restlessness, trembling, mental aberration, aural deceptions, and fearful spectral illusions.

It is distressing to observe patients as they endeavor to protect their persons from the loathsome objects with which diseased imagination surrounds them. Many are possessed with almost superhuman strength. Feats have been performed here in the destruction of bars and casements which are hardly credible. Some have a suicidal tendency; one case of self-destruction by hanging has occurred here within two years. Conjoined with these symptoms there is a very frequent pulse, coated tongue, relaxed skin, constipated condition of the bowels, and an irritable stomach.

More minute observation in regard to the symptomatology will be made when examining individual cases. It is not proper, however, to delay too long with these patients when accompanied by many students, as the presence about them of unfamiliar faces may disturb them. It is, nevertheless, sometimes surprising to what an extent the physician can calm the most agitated patients by addressing them in a confident and decided manner.

The diagnosis of delirium tremens is not usually difficult. Generally, some history of the case can be obtained; the symptoms are almost pathognomonic, and the patient exhales an alcoholic odor.

As regards the prognosis, it may be said that the great majority of uncomplicated cases recover. The twenty cases alluded to as having occurred during my present term of service have recovered. Fortunately no severe chronic disease or serious intercurrent malady entangled them. During the last year, 1867, there were treated here, either under my own care or under that of my colleagues, thirty-eight cases of ebrietas, bordering in many instances on delirium tremens, of which all recovered, and thirty-six cases of delirium tremens, of which five died. The causes of death were, four from uræmia, and one from pneumonia. Autopsies were permitted in three of these cases, confirming the diagnosis of a Brightian complication. Experience teaches that coexistent chronic renal disease is of serious import. I recall two patients apparently convalescing, who were suddenly seized with uræmic eclampsia and almost instantly died.

Before giving a prognosis, therefore, it is necessary to examine the urine chemically and microscopically, as it occasionally happens that renal degeneration makes considerable progress without warning the patient with symptoms ordinarily indicative of that condition. Nor should we be less inquisitive in searching for any other acute or chronic complications.

In the treatment of the disease under consideration, we can fortunately be guided by physiological teachings. Delirium tremens, as we have shown, is induced by poisonous doses of alcohol. In treating ordinary cases of poisoning, the first indication is to remove the offending agent. What naturally becomes of alcohol when taken in moderate quantities and after it has entered the circulation? The experiments of Lallemand, Duroy, Perrine, and Anstie, have exhibited the fact that while a part disappears and is probably decomposed in the body, quite a considerable portion is cast off unchanged, through the lungs, skin, and kidneys. This being so, many patients, though saturated with alcohol and unassisted by artificial means, can in time eliminate a very large amount through the emunctories indicated, and prostrated by their prolonged vigil, fall asleep to awake having accomplished a step in convalescence. If it is necessary to interfere at all, the physician should endeavor to aid nature in throwing off the *materies morbi*.

As in most cases the tongue is heavily coated and the bowels constipated, if the patient is not too prostrate, I am partial to the administration of an emetico-cathartic, preferring the following combination: powdered ipecacuanha, fifteen grains; calomel, ten grains. Under the influence of the emetic, the stomach is relieved of its depraved contents and the liver and gall-bladder of vitiated bile, while the secretions of the respiratory, cutaneous, and urinary systems are increased. Under the influence of the cathartic, the bowels discharge their impacted fæces and offensive secretions, and healthy tone is imparted to the chylopoietic viscera, the tongue soon loses its coating and the stomach its irritability.

Easily digested food can now be given to these patients, as it is important to sustain their strength, and transpiration and diuresis may be favored by allowing them plenty of water as a beverage, to which may appropriately be added some spiritus mindereri, or other similar preparation.

As delirium, restlessness, &c., still continue, it is customary at this stage to administer every two or three hours during the day, from half a drachm to a drachm each of the tincture of valerian and tincture of lupuline. Their effect is salutary both upon the stomach and nervous system.

If insomnolency is persistent, at night resort is had to another remedy possessing hypnotic and eliminative

properties. I refer to the bromide of potassium. This agent acts most efficiently in robust patients, possibly by inducing cerebral anæmia. At about nine P.M., a dose of from thirty grains to a drachm is exhibited, and if sleep is not induced the same is repeated at intervals of an hour until four doses are taken. Usually, the patient is rendered more comfortable by this means, though he may not be entirely quieted. On the succeeding day the valerian and lupuline are repeated as before, and at night a similar repetition of the salt. Usually, the patient now yields to the treatment, and convalescence is commenced by the occurrence of sleep.

Occasionally, longer time is required, and if so, the same plan is continued.

The sleep which first occurs is not as calm and refreshing as in health, but is disturbed by frightful dreams and interrupted by frequent starts and fits of wakefulness. The descriptions of it, as given by patients who have experienced it, remind us of Ovid's account of the nightmare, in which the slumber is harassed with

> "Birds and beasts and dragons, apes
> And dreadful images and monster shapes."

Clinical observers long since noted that convalescence generally dated its commencement from the first period of somnolence. Guided by this fact physicians were led to administer to patients suffering with delirium tremens, large and repeated doses of opium. Opium, while so valuable a remedy in many affections, is positively injurious in alcoholism. Under its influence the kidneys are constipated, and cease in a large degree to eliminate alcohol as well as the other ordinary natural excretions. The blood, already poisoned by the alcohol, is rendered more intensely venomous by the presence of urea, and of the active principles in the opium, and as a result of such toxæmia, the patient is liable at any moment to convulsions, coma, and death.

It is a rule here, not to administer opium in the disease under consideration, especially observing it in cases in which there is a renal complication. Doubtless, the success in the treatment of these cases in this hospital is in a great measure due to this precaution. Should any case seem to imperatively demand an opiate, I should prefer to employ the salts of morphia, which are less likely to diminish the renal secretions than the opium *per se*. These should be given in solution, lest, possibly, if given in powder they should accumulate, and finally induce an overpowering narcotism.

Another important practical point to be considered is the proper diet for these patients. If Bright's disease has been detected and the patients exhibit signs of uræmia, we should avoid giving the azotized proximate principles. Experiments have shown that the ingestion of the protein compounds largely augments the quantity of urea in the blood. I therefore think it necessary to place such patients, at least temporarily, and while threatened with uræmia, upon an amylaceous diet, selecting arrowroot or rice for such purpose. In addition to this, such complicated cases should be dry cupped over the kidneys to prevent renal engorgement, and the loins enveloped in a large hot poultice or covered with flannel and oil-silk.

As respects physical restraint, I would remark, that at times it becomes essential to resort to it. Quite a considerable number of the patients treated here, have either to be placed in solitary confinement, or to be strapped in bed, or to be secured in a strait jacket. It is disagreeable to have recourse to such measures, but we must not hesitate to adopt them, if by neglecting to do so we jeopardize the life of the patient, or the lives of those about them. Discontinue them, however, at the earliest practicable moment, for unnecessary restraint will tantalize.

Occasionally, prostration is so extreme during the disease or subseqent to it, that stimulants seem indicated. The malt liquors are to be preferred if alcoholic stimulants must be given, but it is treading on dangerous ground to prescribe them, for their use may enkindle a taste which in such persons should be especially discouraged. The reports of penal institutions and almshouses exhibit the fact, that tipplers, when placed under restraint and their intemperate habits suddenly checked, merely suffer temporary and trifling inconvenience. It may be desirable, in such cases, to substitute for the accustomed stimulant some mild vegetable infusion or decoction.

In conclusion, I would have you remember, that when called to see cases of delirium tremens, it may simply be necessary for you to be passive spectators, leaving the cure for the most part to the *vis medicatrix naturæ*. If nature is unequal to the emergency, you may resort to the therapeutical means which have been recommended, and which will generally suffice to bring the cases, if uncomplicated, to favorable issues; and if complicated, will materially tend to lessen the liabilities to disastrous terminations.

Clinical Department.

NEW YORK HOSPITAL.

FOUR CASES OF TRICHINOSIS,

REPORTED BY

ALBERT H. BUCK, M.D.,

HOUSE PHYSICIAN.

The following cases occurred in the service of Dr. Hackley:

CASE I.—John Wöbka, 30, German, seaman. Admitted Jan. 21, 1869.

On admission, patient was supposed to be suffering from acute epididymitis only. Under proper treatment the swelling of testicle subsided, but still it was noticed that patient's pulse and temperature kept up considerably above normal. He was given quinine in gr. v. doses, ter in die, but without any effect in reducing the temperature.

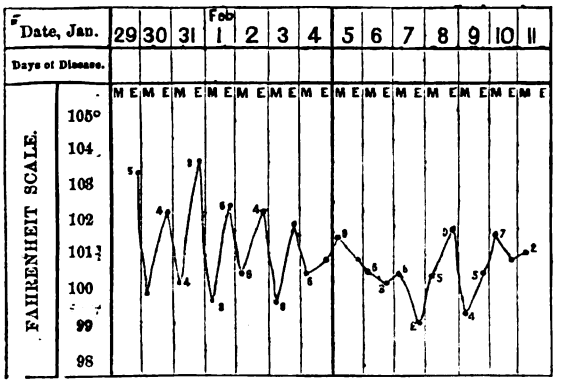
Jan. 29th.—Last night patient had a prolonged chill. This A. M. he was transferred to the medical side of the hospital. Present condition: temperature 103.5° Fahr.; pulse 112; respirations 31. Tongue red and inclined to be dry; complains of pains in back and limbs; arms tremble as though he were in the midst of a chill; has some diarrhœa; no eruption visible; some tenderness on pressure over abdomen. Ordered beef-tea and milk and farina diet; also, ℞. Quiniæ Sulphatis gr. xxx., Acid. Sulph. Dil. q. s.. Infus. Serpentariæ ℥ j. M. Cap. ℥ ij. quaque quarta hora.

Feb. 3d.—Patient has been growing steadily worse; suffers a great deal from pains in back and limbs; the slightest motion causes him pain; diarrhœa has ceased. Takes now whiskey, ℥ iv. in die.

Feb. 11th—No new symptoms have manifested themselves, except the appearance of some œdema in both legs; has lost ground since last report. Yesterday, for the first time, it was suspected that patient might possibly be suffering from trichinosis. In accordance with this belief, Dr. Hackley, the attending physician, authorized an explorative incision. This morning,

however, the patient was found in such a weak state that it was thought unadvisable to operate. At 4 P. M. patient died.

Below is given a diagram of the range of temperature in this case, recorded to tenths of a degree Fahrenheit.



Sectio cadaveris twenty hours post mortem.—Body somewhat emaciated; rigor mortis present.

Thorax.—Some fluid in both pleural cavities; moderate œdema of both lungs; heart normal.

Abdomen.—Liver of a rich deep yellow; gall-bladder of a whitish pink, and containing an almost colorless serum; weight of liver, 70 oz. *Spleen* normal. *Kidneys* moderately enlarged and congested. Some traces of peritonitis, such as fluid containing flakes of lymph, in the peritoneal cavity. *Intestines.*—On exposing the mucous aspect of the small intestines, there was noticed here and there a spot of arborescent congestion, with some thickening of the mucous membrane.

The muscular tissue of the diaphragm, obliquus externus, and heart, was carefully examined under the microscope. The heart was found to be entirely free from trichinæ; the other muscles contained them in great abundance. They were not yet encysted, and manifested undoubted signs of life by slowly coiling and uncoiling. After this discovery an effort was immediately made to ascertain where patient had contracted his disease, but it proved fruitless, at least at that time.

Case II.—Robert Campbell, 32, German, seaman. Admitted Feb. 13, 1869.

Patient states that he was quite well up to seven days ago, when he began to suffer from pains in the back and abdomen, constant thirst, and a general feeling of malaise. Appetite left him. Two days later a slight diarrhœa commenced, and lasted about forty-eight hours. Since then bowels have been regular. Finding himself growing weaker every day, he left his boarding-house and entered the hospital. On admission, is in fair general condition. Tongue red and dry; pulse moderately accelerated; temperature elevated. On examination there is found to be some tenderness over abdomen; no eruption present. Ordered usual treatment in typhoid fever.

Feb. 14th.—Patient is in about the same condition.

Feb. 15th.—Last evening patient called attention to his back, which he said caused him great pain. On examination there was found to be tenderness over the part referred to, but no swelling. Pressure being accidentally made on patient's thigh, he uttered an exclamation of pain. This aroused suspicion and led to a closer examination, which revealed the existence of tenderness over all the muscles. By dint of cross-questioning it was then ascertained that patient had frequently eaten raw ham and sausage at his boarding-house; and that seven others in the same house had been sick, during the past four weeks, with symptoms resembling his own. The patient's consent having been readily obtained, an incision an inch and a half long was made over the deltoid, and a small piece of the muscle (about the size of a split pea) removed for microscopic examination. Each piece of this muscular tissue of the size of a small pin-head was found to contain from two to six fully developed muscular trichinæ. No encysted specimens could be found.

Feb. 16th.—This A. M. the sutures were all removed, and the wound was found to have healed by first intention. General muscular tenderness still continues, but patient is otherwise doing well.

From the boarding-house keeper it was ascertained that, on the 21st of January, a sailor by the name of John Wöbka was removed to the New York Hospital for medical treatment; and that the runner of the house, Peter Nelson, died in the same institution at the end of last month, after a three weeks' illness. On referring to the hospital record, Nelson's history is found to be the following:

Case III.—Peter Nelson, 32, Swede, seaman. Admitted Jan. 16th, 1869.

Patient states that on the afternoon of Jan. 12th he had a chill, and since then has been troubled with a slight diarrhœa and feverishness. Was previously in good health. On admission, complains of great pain in back. Has some cough. Examination of chest discovers a few rhonchi in both lungs. Ordered: ℞ Liq. Ammoniæ Acetatis ℥ ss. quaque tertia hora, and restricted diet.

Jan. 18th. Has been troubled with diarrhœa since admission; examination of abdomen reveals gurgling and tympanites. Temperature 103° Fahr.; respiration hurried; pulse rather weak. Ordered to stop Spts. Mindereri.

℞ Quiniæ Sulphat. gr. xxx., Acid. Sulph. Dil. q. s., Infus. Serpentariæ Oj. M. Cap. ℥ j. quaque quarta hora.

Jan. 19th. Patient had considerable fever last night; this A.M. is somewhat better, but still complains of pains in his bones. Ordered opii gr. i. ter in die and continue treatment.

Jan. 25th. Patient is steadily growing worse. Complains much of pain everywhere throughout body; when the thermometer is introduced into the axilla, and the arm drawn across chest, he winces from pain. Tongue red and very much swollen; cannot protrude it from mouth. Two or three loose stools daily; tenderness in right iliac fossa. Ordered whiskey, ℥ iv. in die.

Jan. 26th. Patient much worse this A. M. Rhonchi more numerous throughout chest. Ordered whiskey, ℥ viii. in die.

Jan. 28th. Patient is growing weaker every day. Intellect clear. Temperature remains elevated. Ordered whiskey, ℥ xii. in die.

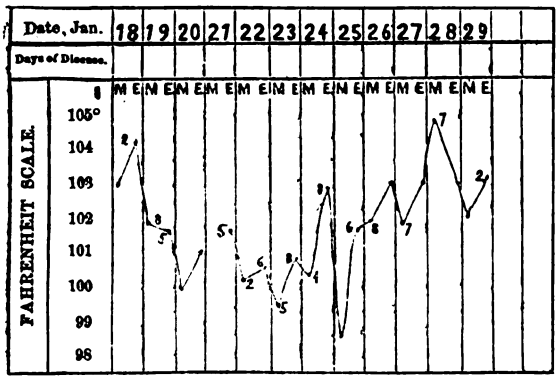
Jan. 29th. Patient is now too weak to expectorate. Râles can be felt in both chests. Ordered dry cups to anterior part of chest and ℞ Ammoniæ Carbonat. gr. ij. quaque hora. This evening the patient died.

Sectio cadaveris, 21 hours post mortem. Rigor mortis well marked; very little emaciation.

Thorax.—Some œdema and congestion of both lungs; the larger ramifications of the bronchial tubes congested on their mucous aspect.

Abdomen.—Liver healthy in appearance, 73 oz. *Spleen* healthy, 8 oz. *Kidneys* healthy, 10 oz. *Small intestines.*—No ulcerations can be found; Peyer's patches present somewhat of the shaven-chin appearance; mesenteric glands a trifle enlarged.

Temperature in this case as below:



The boarding-house keeper also stated that a young sailor, by the name of Rasmerson, had been taken to the New York Hospital about the same time as their runner. On inquiry, the boy was found to be still a resident of the hospital. His history runs thus:

Case IV.—Charles Rasmerson, 26, Dane, seaman. Admitted Jan. 28th, 1869.

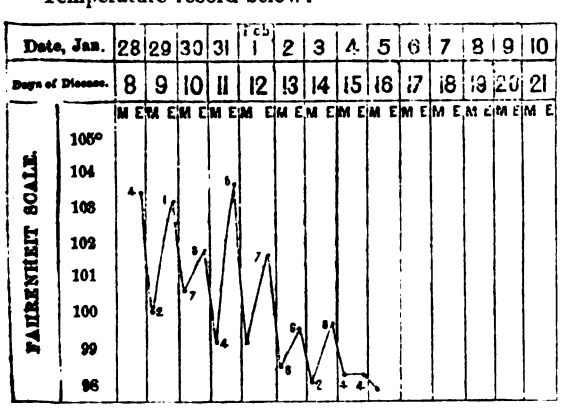
Eight days ago patient was suddenly seized with a sharp pain in the right side. About the same time he commenced to cough and expectorate. The pain soon extended to the back and abdomen, and has continued with moderate severity up to the present time. Has had one or two loose stools daily. On admission is in good general condition. Pulse, 100; temperature, 103° Fahr.; respirations, 30. Some abdominal tenderness; no eruption. Ordered usual treatment for continued fever.

Jan. 31st. In about the same condition. Diarrhœa has ceased; very little abdominal pain.

Feb. 13th. Patient is now able to sit up; complains only of weakness in the legs.

Feb. 16th. Yesterday afternoon it was ascertained, in the manner referred to above, that patient was very probably suffering from trichinosis. He was questioned as to whether he had had any tenderness over the muscles of the arms and legs, but replied in the negative. Examination, however, showed tenderness in calves of legs and pectoral muscles. His consent having been obtained, a spot on the shoulder, about the size of a silver half-dollar, was benumbed by local anæsthesia, and an incision an inch and a half long made through the skin with scarcely any pain to the patient. A portion of the deltoid was removed, as in the preceding case, and found to contain several fully developed muscular trichinæ in an encysted condition.

Temperature-record below:



According to the statement of the boarding-house keeper, another sailor, by the name of Hamann, was on Thursday last (Feb. 11th) removed to the Brooklyn City Hospital. Dr. Bulkley visited the hospital, and, after some search, identified the patient. As. Dr. Gregory, the resident physician, has since proved it to be a genuine case of trichinosis, we trust its history will soon be published.

The boarding-house keeper, his wife, and the barkeeper were all taken sick at the same time, about four weeks ago. They all suffered from diarrhœa, pains in different parts of the body, and a general feeling of malaise, but were none of them obliged to keep their beds.

A visit was made to the dealer who furnishes the boarding-house with hams and sausages, but it was attended with no satisfactory result.

[We shall publish, in our next number, a lecture upon the Trichina Spiralis, by Prof. J. C. Dalton, phonographically reported for the Record.—Ed.]

Progress of Medical Science.

Improved Medicated Pessaries.—At a meeting of the London Obstetrical Society, Dr. Meadows exhibited some medicated pessaries, which he believed to be more efficacious than those made with the cocoa butter. These new forms were more cleanly and more certain. The uncertainty in the action of the pessaries in ordinary use he believed to depend mainly on the fact that it was no part of the function of the vagina to absorb fat, and that the medicinal ingredients in the pessaries, being coated over, as it were, with a protective shield of the butter, passed away from the vagina without being absorbed. At his suggestion Messrs. Bell & Co. had now made some pessaries in which the basis was soft soap made into a mass, either with powdered althæa or with starch, or with beeswax. In either of these forms the pessary would readily melt, and the ingredients were easily absorbed by the vagina. From the absence of any protecting fat, the strength of the pessary could be much diminished.

The Diagnosis of Anal Fistula.—Prof. H. R. Storer (*Am. Journal of Obstetrics*) objects to the following ways in the diagnosis of anal fistula:—First, by filling the rectum with a fluid, clear or colored, which is to be forced by muscular contraction downwards through the fistulous canal, and distending the inner opening; second, by injecting the fistula from its outlet, and watching through the anal speculum for the emergence of the fluid at some point within the rectal canal.

He regards both of them as unreliable, and both are difficult of performance. In injecting the fistula, a colored fluid is preferable to any other.

By everting the rectum from within the vagina, the difficulties are at once done away with. The rectal coat is exposed throughout its circumference; it is put upon the stretch and the rugous folds effaced; it is readily kept cleansed, and the smallest drop of fluid driven through the walls at any point, is compelled to reveal its source. By passing a hollow sound, like that of Savage, for applying liquids to isolated points of the mucous membrane lining the uterine cavity, or if the fistula be too contracted for this, by inserting as far within it as can be done, a perforated or grooved probe, and then applying to this a hypodermic syringe, the fluid can be driven directly into the inner opening, if it exist, or against the rectal wall at its nearest points and thus the diagnosis be effected, everything having, been brought clearly within view by eversion. So far as he is aware, this method is a new one.

BROMIDE OF POTASIUM IN LARYNGISMUS STRIDULUS.—Dr. B. F. Dawson (*Am. Jour. of Obstetrics*) advocates the administration of bromide of potassium in laryngismus stridulus. He gave it in ten grain doses, to a boy four years of age, and the obstinate and dangerous affection was palliated. Although the disease is not considered cured, yet he safely believes that the paroxysms have been completely broken by its action, and there is all likelihood that they will not return for some time, and when they do recur, bromide of potassium is confidently relied upon as a powerful means of warding them off.

He concludes, that it is quite probable that the beneficial effect of this drug is due to the *anæsthesia* it produces when given in large doses, as was done in this case, and not to any direct impression on the cerebral or ganglionic systems.

RECENT EXPERIENCE IN OVARIOTOMY.—Since last October, T. Spencer Wells (*Med. Times and Gazette*) has completed the operation of ovariotomy at the Samaritan Hotel, in thirty-six cases, besides one case in which he performed the operation successfully for the second time on the same patient. Of the thirty-six women, thirty-one recovered and five died.

HOLT'S OPERATION FOR STRICTURE DANGEROUS.—Mr. Hamilton (*Medical Press and Circular*) mentions a fatal case of stricture following the insertion of Holt's dilator. Twelve hours after death an autopsy was made and the following facts revealed. The inferior wall of the urethra was lacerated at the point of stricture into the corpus cavernosum. Some pus issued from the bottom of the fissure on pressure. The fatal termination was attributed to a form of systemic infection, but there were many peculiarities in the symptoms, the paralysis of the lower limbs, the sensibility of the skin and muscular pains, the absence of rigors, sweating, or delirium. The appearances of the eruption on the body and viscera were uncommon. He regards pyæmia as the chief source of danger in this operation, and the occurrence of suppuration in such a stricture as the corpus cavernosum must be a condition specially favorable for its development.

TREATMENT OF NERVOUS HEADACHE.—The following remedies in the treatment of this affection are recommended by Professor W. A. Hammond: Oxide of zinc is of great value; ordinary dose, two grains three times a day after meals; maximum dose, five grains. It is best given in the form of pills. Bismuth, in the form of subcarbonate, will often take the place of oxide of zinc. Dose, two grains after each meal. Bismuth probably assists digestion more than any mineral tonic, and is of use when there is gastric disturbance.

PRESCRIPTION FOR WHOOPING-COUGH.—The late Dr. Valentine Mott's prescription for whooping-cough was as follows:

℞.	Hydrocyanic acid,	gtt. vi.
	Ext. Belladonna,	gr. ij.
	Paregoric,	f. ʒ iij.
	Syrup Balsam of Tolu,	f. ʒ j.
	Aqua	f. ʒ iij.

M. S.—One teaspoonful four times daily.

PROBABLE SOURCE OF THE STEATOZOON FOLLICULORUM.—J. H. Salisbury, M. D., Cleveland, Ohio (*St. Louis Medical Reporter*), has often noticed in the skin and surface adipose of butchered hogs, small opaque masses, and on examination, he was surprised to find the growth of little *sacs*, which were perfectly filled with the *steatozoon folliculorum;* the little animal that inhabits the fat follicles of the human face.

From two hundred to three hundred of these animals were found in each sac, in all stages of growth, from the ovum to the mature form. It has been supposed that the fat follicles of the human face were the natural home for these animals. It now appears, however, that their original and natural habitation is in the skin and surface adipose of hogs, and that we are indebted to swine for this parasite as much as we are for trichinæ and tape-worms. He states finally, that the little growths containing these parasites can readily be distinguished from those of "measly pork," and from pork containing trichinæ. The steatozoon inhabits exclusively the skin and surface adipose, while in trichinous and measly animals, the parasites occur in the muscles, and often in the other tissues.

A NEW PROCESS FOR GENERATING CHLORINE.—A new process for generating chlorine has been devised by a Belgian chemist. He first forms trisulphate of sesquioxide of iron, by the direct combination of this oxide with sulphuric acid, and then mixes the trisulphate obtained with three equivalents of chloride of sodium or other convenient chloride. Upon heating the mixture in dry air, the chloride of sodium yields all its chlorine.—*Paris Correspondent Chemical News.*

THE FUNCTION OF THE BILE UNKNOWN.—Dr. Letheby (*Chemical News*), in an article on "Food," states that the true function of the bile is unknown; perhaps it aids in neutralizing the acid peptones from the stomach; perhaps, also, in emulsifying fat; and it may be that it helps the digestion of starchy foods. Lehmann thinks it is a rich residuum from the manufacture of blood globules in the liver, and that it is secreted into the alimentary canal, only to be reabsorbed into the blood. Mr. Lee, also, is of opinion, from his examination of the fœtal liver, that it separates a highly nutritious substance from the fœtal blood, which is elaborated in the intestines. Its functions, however, are manifestly obscure.

The bile is a complex liquid, consisting of biliary acid (taurocholic, glycocolic, &c.) in combination with soda. Its reaction is slightly alkaline, and it contains about fourteen per cent. of solid matter, not less than twelve of which are organic.

SUB-INVOLUTION OF THE UTERUS.—Dr. Read (*Boston Medical and Surgical Journal*) mentions a case of subinvolution of the uterus, which is still under his care, with the following history: A married lady, after confinement, complained of excessive flowing at her menstrual period, which was every three weeks. When first seen, the uterus was very much anteflexed, the neck elongated, soft, and the whole organ lay very low, resting on the rectum. The iodized cotton was used as a local application, packed with a cotton tent with glycerine. The treatment was continued four weeks, when the patient improved. At the present time, the size of the uterus is reduced, and the organ can be raised on the finger without giving pain. The os uteri is firmer and looks more natural.

The glycerine causes large quantities of serum to flow from the vagina, and thus reduces the engorgement of the parts.

MALIGNANT DISEASE OF THE RECTUM.—Dr. Alden March, of Albany, New York, in a paper on "Scirrhus of the Rectum," read before the New York State Medical Society, in 1868, gives the following results of his own observation on this disease: Contrary to the best authorities malignant disease of the rectum and anus is most often found at the middle or somewhat advanced period of life. Most authors believe that women are most commonly its victims, but this does not accord with his observations, neither as relates to cancer nor to the more common affection of *fistula in ano*, having operated

on the male for relief of the latter disease twice where he has once on the female.

The disease is developed in the apparently healthy as well as in the unhealthy, in the vigorous and robust as well as in the feeble, in the active as well as in persons of sedentary habits.

In conclusion, he relates a case of scirrhus of the rectum, in a woman twenty-six years of age, which he removed with success. Stimulants, tonics, and anodynes were used freely; the bowels remained unmoved from the 8th of January, the day of operation, till the 21st of January, some fourteen days. He believes that the ultimate success of the operation was due to the quiescent state of the bowels, till the union of the parts had become sufficiently firm to allow of a fæcal evacuation without danger of breaking up the union of the parts, as well as to the general good management after the operation.

Treatment of Syphilis of the Rectum.—M. Després, surgeon at Lorraine (*Paris Cor. Med. and Surg. Reporter*), has recently made a study of seven cases of phagedenic chancre of the rectum, and states that these rectal chancres are generally caused by direct contact of the pus which flows from chancres at the vagina, and which trickles down upon the anus. It penetrates by capillarity, in the same way as the pus of vaginitis, which causes an inflammation of the urinary meatus.

The treatment of these phagedenic ulcerations consists in cauterization, with a view of transforming the ulceration into a granulating surface analogous to that of a simple wound. M. Després passes over the chancre by means of pincers, meshes of lint imbued with a solution of chloride of zinc. This solution has the advantage of attacking with great energy, surfaces deprived of their epithelium, leaving the others intact. Large bougies of lint, covered with a pomade of lard and glycerine, should be kept constantly in the rectum, and be renewed every twenty-four hours.

When ulcerations and stricture coexist, and pus flows from the anus, astringent injections should be used, made with eight grammes of rhatany, two to four grammes of dry chlorate of zinc, and two hundred and fifty grammes of water. On the same day two oil injections should be administered. Dilatation should then be sought by means of india-rubber canulæ.

Fistulæ of the rectum should be cauterized as well as the chancre, since they are equally phagedenic.

Protoxide of Nitrogen as an Anæsthetic.—From the report of the Committee of the Odontological Society of Great Britian, on the employment of nitrous oxide gas as an anæsthetic, the following particulars are gleaned: Whether this anæsthetic is as safe, or safer, than those in general use, they give a guarded answer; stating, however, that it is at least as safe for short operations as any other anæsthetic.

The advantages and disadvantages are then given. The advantages are these; the rapidity of its effects in producing anæsthesia, the shortest time being twenty-five seconds, rapidity in recovery, its agreeable nature, its being tasteless and less irritating, almost entire freedom from nausea and vomiting, occurring in less than one per cent., absence of headache and vertigo, as a general rule, after complete recovery from the anæsthesia.

The disadvantages are noted as consisting in its unsuitableness for long operations, on account of the rapidity of recovery; in the difficulty of making and transporting the gas, and also the expense of the agent, in its being troublesome to make, and requiring unusually complicated apparatus in its administration; in the undesirability of quick recovery in operations followed by much pain; in the administration being occasionally accompanied by twitchings which render it unsuitable for delicate operations.

As regards the question, whether there are any special conditions of the system contra-indicating its use, caution is advised, especially in those affected by disease of the heart, vessels, or lungs.—*Medical and Surgical Reporter.*

Treatment of Aphasia.—Roberts Bartholow, M.D. (*Cin. Med. Repertory*), in a clinical lecture on *aphasia*, delivered at the Hospital of the Good Samaritan, brought in a man, about 40 years of age, a painter, afflicted with aphasia and hemiplegia of the right side, who presented the aspect of robust health, but had a distinct blue line on the gums, which showed that he had been poisoned while mixing paints.

The treatment which he pursued in this case, was based upon the idea that lead has a special affinity for nervous matter. Ten grains of the iodide of potassium were ordered three times daily. In addition, he injected into the paralyzed limbs ½ grain of strychnine.

To overcome the rigidity, ¼th grain of atropia was added to the injection the last few times, and with a beneficial result. Under this treatment the patient has certainly improved.

Constitutional Syphilis Treated by Hypodermic Injection.—Dr. Hammer (*Humboldt Med. Archives*) reports further satisfactory results from the hypodermic injection of one-eighth grain doses of the bichloride of mercury dissolved in water, in constitutional syphilis. Under the use of this remedy once daily, the worst symptoms rapidly disappeared.

In this treatment there is said to be less danger of unpleasant local effect,—inflammation, suppuration, and abscess—if the injections are made through the thicker skin over the loins.

Gleet Treated with Carbonic Acid—Dr. Whitehill (*Humboldt Med. Archives*) stated to the members of the St. Louis Medical Society, that he had, about a week before, been consulted for a case of gleet, of over two years' duration, that had resisted all previous treatment.

Dr. W., ordered, internally, tr. ferri chlor. gtt. x., and tr. canthar. gtt. v., three times daily, in sweetened water, and the injection morning and evening, with a long-nozzled syringe, of a half ounce of a mixture of carbolic acid, ℥j., aq. ext. opii., ℥ij., and glycerine, ℥ iij., to infus. matico, ℥ v.; the injection to be used after fully evacuating the bladder and to be retained at least ten minutes, and then micturition to be avoided as long as possible. The first morning after the first injection, the discharge was very materially increased; the second morning it was still increased in quantity, but no longer purulent; the third morning there was no discharge perceptible; on the fourth, there was "about a half drop, that looked like the white of an egg," and since then (two mornings) there had been none. The injection produced no pain or discomfort.

Strychnia in Beer.—The *British Medical Journal* contains the following startling statement: It is said that several large brewers are experimenting on the properties of strychnia, with a view of testing how far it may be used safely in bitter ales.

An Extensive Thrombus during Labor.—Prof. Geo. T. Elliot, Jr. (*Am. Jour. Obstetrics*), alludes to the following case of labor, which occurred July 12th, 1868: He was summoned by Dr. Sayre to a lady in labor with her first child; on vaginal examination the head had not advanced as expected, and the vaginal

walls and perineum were enormously distended by a rapidly increasing thrombus.

The patient was under chloroform moderately, and did not seem exhausted. Large doses of brandy and Borden's extract of beef were administered, ammonia and salts provided, and they decided to attempt delivery by forceps, and to incise when necessary. The transverse bars of the forceps were introduced within the vulva to seize the head, and when the blades were locked, the right labium cracked through the mucous surface, and a large clot of blood flopped out with such violence that a portion struck the top of Dr. Elliot's head, a distance estimated at three feet. The left labium was freely incised, and a living child, with the placenta, was delivered with great rapidity. The broken-down cellular tissue was removed from the gaping wound on the right side, and the open places on the right and left were stuffed with lint steeped in Squibb's liquid persulphate of iron.

Ergot was then given, and the patient was bandaged with compresses and a T-bandage below. The patient was thoroughly stimulated and fed, and treated for the depressing influences of the loss of blood. The vagina was injected on the third day with a solution of weak carbolic acid, and gradually repair was effected, and the patient's health restored.

Insusceptibility of Pigeons to the Toxic Action of Opium.—S. Weir Mitchell, M.D. (*Am. Jour. Med. Sciences*), finds from actual experiments that pigeons are proof against opium poisoning. He injected sulphate of morphia, afterwards forty drops of black-drop (acetum opii), and in ten minutes gave by the mouth, through a tube, fifty-five drops; not a single sign of opium poisoning was detected.

Astounded at an immunity so perfect, he endeavored to discover what amount of opium was needed to cause death, and after various trials, the following final experiment seemed to him decisive: To a large pigeon, which, within the two preceding days, had swallowed forty-two drops of black-drop, he gave, between two P. M. and six o'clock, *twenty-one* grains of powdered opium in soft pills of three grains each. Except the usual tendency to remain quiet, none of the common evidences of opium poisoning appeared, and the pigeon was well and active the next day.

Hyposulphite of Soda in Malarial Fever.—Thad. L. Leavitt, M.D., of Germantown, Pa. (*Am. Jour. Med. Sciences*), recommends hyposulphite of soda, in fifteen-grain doses, in the treatment of intermittent fever.

Tobacco a Hypnotic in Chronic Wakefulness.—Dr. E. A. Hervey, of Rossville, Staten Island, New York (*Am. Jour. Med. Sciences*), alludes to a case of *insomnia*, in a person who had never been in the habit of using tobacco in any form, which was relieved by a few puffs of tobacco just before the patient retired. A sweet and dreamless sleep was induced.

Treatment of Epistaxis.—Mr. Croly (*Medical Press and Circular*) made some practical remarks recently, to the pupils of the City of Dublin Hospital, with reference to the treatment of epistaxis, and impressed on them that plugging the nose should not be resorted to until the ordinary methods had proved unsuccessful. These modes are raising the arm or arms above the head, cold applied to the nape of the neck and forehead, dry cupping the same region, placing the feet in hot water, directing the patient to snuff up astringent powders.

A New and Successful Operation for Strabismus.—J. G. Hildige, F.R.C.S.I. (*Medical Press and Circular*) having observed in his own practice, that the degree o parallelism following the operation for strabismus, a made after the modes of German and English surgeons, is far from satisfactory, the eye either returning to its former position or tending to wander in the opposite direction, has discovered the following means of obviating it: It consists in drawing with an extremely fine point of nitrate of silver perpendicular lines of about one-fourth of an inch in length between the angle of the eye and the margin of the cornea, on the side of the eyeball opposite to that towards which the eye tends to wander. For instance, if the internal rectus be the muscle which has been detached (strabismus convergens), and if the eye some time after the operation shows a disposition to return to its former position, he draws the lines, two at the utmost on the conjunctiva, between the external angle of the eye, and the margin of the cornea; on the other hand, if the eye wander too much outwards after the detachment of the muscle, and does not become parallel with the other eye after the expiration of the period allowed for the subsequent contraction of the wound, the lines are drawn on the nasal side of the eyeball, and in the same position as on the opposite side.

Cases are appended which show that if this practice is resorted to within a short period after the operation, and if there be no incongruence of the retina present, it is almost certain to be attended with success.

Treatment of Ulcers in the Time of Pliny.—In *Pliny's Natural History*, we find that the following articles were used in the treatment of foul phagedenic and gangrenous ulcers and wounds: The blood and mashed flesh of dragons, toads, serpents, worms and fish.

The Substitution of Chlorate of Potash, for Sulphate of Potash, in Dover's Powder.—A writer in the *Boston Journal of Chemistry*, advocates the chlorate of potash, instead of the sulphate, in Dover's powder, for the following reasons. According to the Dispensatory, its largest constituent (the sulphate of potassa) serves no other important purpose, than by its bulk to dilate, and by its hardness to promote the minute division and thorough intermixture of the other ingredients; while the chlorate of potassa, in addition to the above requisites, possesses valuable medicinal properties well suited to increase the efficiency of the compound, and can never be contra-indicated in any disease in which the Dover's powder is administered. There are a great many diseases in which the powder is used more or less, that are complicated with a sore mouth or throat which the chlorate would rapidly cure. Enhanced efficiency of the preparation in those febrile states consequent upon taking cold and attended with a sore throat have been noticed; also in bowel complaints, diarrhœa, cholera infantum, etc. He suggests finally, that sulphate of potassa in the Dover's powder be displaced by the chlorate of potassa in the next edition of the U. S. Pharmacopœia.

Drinking-water in Italy a Cause of Stone.—We have it on the authority of a highly intelligent Florentine, of great medical accomplishments, that 80 per cent. of the population are more or less afflicted with these diseases; and English residents, after but a few months' experience of Florence and its water, have found themselves suffering severely in the kidneys and bladder. *Med. News and Library.*

The Treatment of Cardiac Neuralgia.—Dr. Anstie (*The Practitioner*) treats this affection very successfully, with arsenic by the stomach or by inhalation, and strychnia subcutaneously injected in doses of from $\frac{1}{120}$ to $\frac{1}{40}$ grains. Ether, in teaspoonful doses, is the best palliative in an actual attack.

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EDUCATION OF THE PEOPLE ON MEDICAL TOPICS.

To hold the profession responsible for much of the growth of quackery among the people is at first sight rather a startling proceeding, yet such a charge has nevertheless a very good foundation in fact. Like unto a thoroughly ancient and respectable order, we have become so accustomed to treasure up our legends, to hand down our watchwords, to nurse our old prejudices, to wrap ourselves so much within ourselves, that we seem utterly oblivious to the changes that have been wrought all around us. We have seemed to forget that during the last century or two, as the result of a dissemination of knowledge through the people, we have none but ourselves to look to as the custodians of the honor of our craft. In every other department of science the public have been educated to discriminate between true and false doctrines, but in respect of such a knowledge of medicine we as a body stand to them in the same relation as we did a hundred years ago. That the fault is not theirs is apparent from the avidity with which the popular mind is ready to seize upon and appropriate any useful scientific information. In fact, the thirst for information is so great, particularly among the educated classes, that in lieu of the teachings of adepts, they are even willing to listen to the vilest pretenders, who, under the hypocritical garb of acknowledged benefactors to their race, foist upon the understandings of the otherwise informed the claims of all sorts of special practices, quack nostrums, and the like. The victims of these practices can hardly be blamed for their beliefs when they are denied the fundamental truths from the fountain-heads. We have really no right to blame them for their ignorance when we refuse to enlighten them.

A divine who was once upbraided for allowing the performance of lively music in his choir, replied that the devil had had the good music long enough, and that it was time for the Almighty to have his share. Our profession as a body stand in the same relation to the educated masses as did the dominie to his complainants. The time has evidently come when we must wrest from the hands of the unprincipled the advantages which necessarily belong to their assumed positions as teachers. The people to whom we naturally look for patronage, and who claim the right to judge for themselves, should not longer be denied the means which shall enable them to think and act properly. There are no secresies practised among us, nothing dishonorable in our treatment of disease; nothing, in fact, that cannot stand the scrutiny and examination of the most acute intellects of the layman. As a class of professional men we are confident that the more our doctrines are unfolded, the more the absolute truths are promulgated, the better for our calling. It does not seem that the reason why we do not strive to educate the people on the fundamental principles of life is due to any fear of detection of fraud, or to a charge of being advocates of an exclusive system, or to an inability to explain a reason for the faith within us—we are in truth so conscious of the rectitude of our principles, that we do little else to outsiders than nurse a contempt for any differences of opinion that they may express—the general feeling being that we can afford to risk the consequences of still keeping our light under the bushel.

If we followed the example of the other professions in this respect, it might not be so disastrous to our interests; unfortunately for us, however, this we do not do. Every pains is taken by the different religious denominations to inform their followers of the points of their creed, and the reasons for the holding of certain doctrines; religious works of every description are distributed, religious newspapers are forced into every family, and all the eloquence and learning of the most gifted divines are thrown against the bulwark of ignorance. Again, questions of law and of government are almost daily discussed in the secular papers; the opinions of celebrated jurists are quoted on the more important points, and every one who has a desire to become informed upon these subjects has the best of opportunities. The same might be said to a certain extent concerning every other calling save that of medicine, and the direct consequence is and has been that while the public are well enough informed to judge for themselves upon every other topic, a most shameful ignorance possesses them concerning the principles upon which the true science of medicine rests.

In order to educate the people upon medical subjects it is by no means necessary to give them more than the general principles, such being sufficient to enable them to judge properly between truth and science, and falsehood and quackery. We are well aware that the objections to this would be the supposed danger of a little learning, which in itself might not be preferable to absolute ignorance. Concerning this point, Prof. A. B. Palmer, who, as one of the members of the Committee on Public Education for the American Medical Association, has written a very able report urging the propriety of the education of the people upon medical topics, says:—

"This objection, if valid and applied as a principle, would close all institutions of learning and plunge the world into the most profound mental darkness; for up-

on what great subject has even the most learned complete knowledge? It has been said that

'A little learning is a dangerous thing,'

but this sentiment has been generally repudiated in more modern times; and driven from every other place, is it to find its final and eternal lodgment in medicine? True knowledge upon all subjects must be good. It is a false knowledge that does harm in medicine as in everything else. Increase of knowledge, it is true, increases responsibility and may be turned to evil account, but it is safer and better than ignorance. Nothing is further from the truth than that correct though partial knowledge of medical subjects will induce persons to depend upon themselves and not call for professional aid when ill. It is only presumption founded upon false knowledge which produces such results. True knowledge on these subjects will induce caution and lead to the employment of the most skilful. What is the resort when they or their families are ill? Would other men, if informed, do differently?"

We believe that the position of the distinguished teacher is a true one, and that it would require very little instruction to set the public mind aright, that legitimate practice would be thus encouraged and the sale of quack medicines notably diminished. Nothing can take out the conceit of a medical adventurer so effectually as a true knowledge of the dangers that may stand in the way of his advice. A striking anecdote bearing upon this subject is told by a distinguished French surgeon. It seems that on a certain occasion he became interested in a village blacksmith, who had performed of himself, and without any knowledge of surgery, some very daring operations upon his neighbors, and he determined to give him the advantages of a medical education. The offer was accepted, and the, pupil spent some time in the study of practical anatomy when of a sudden he was missed. A year or two afterward the surgeon was in the identical village and discovered his pupil at work in his shop. When asked the reason, he significantly replied—"Oh, my dear friend, as soon as I found out what a number of large vessels there were scattered throughout the body, especially in those parts that I had been in the habit of cutting, I did not dare to go any farther; I am now a simple blacksmith and shall never operate again."

Acknowledging as we must the necessity at this time of educating the people, the question as to how it is to be done naturally enough comes up. The most obvious way to begin is with our schools and academies, by countenancing the introduction of physiology, elementary anatomy, and hygiene, as part of the regular course of study. This has been done in a quiet way, but the sanction of the course is by no means as general as it should be. As an indication for good we are pleased to hear of several well educated physicians who have undertaken, with success, the teaching of these branches orally. There has been no want of good works that may be used as text-books. Cutter's and Lambert's Physiology have respectively divided the honors up to a recent period, when a formidable rival to both makes its appearance from the gifted pen of Prof. Dalton.

The plan of teaching these subjects in our academies has been attended with the best of results in directing the thoughts of our future thinkers, and our destined leaders of public opinion in the right direction. Prof. Palmer, in speaking of the effects of this instruction to college students in their undergraduate course, says:—"They have manifested much interest in the subjects, and have not only received practical information respecting the preservation of health of body and mind, but have become rationally convinced of the utter absurdity of all exclusive systems of medicine and of infinitesimal dilutions; their sympathies being deeply enlisted in the course of scientific truths, as relating to subjects connected with our profession. Of an entire senior class of various previous predilections there is scarcely indeed a single exception to this statement."

Another and more direct means of reaching the masses is through the popular lecture system. In doing this, if it be done properly and with a true conscientiousness toward the professional brotherhood, there need be no fear that the true dignity of our calling will be compromised. One successful experiment in this line has recently been made under the auspices of a celebrated dominie of Brooklyn, by one of the first surgeons of this city and country, and another with equally good result before the Young Men's Christian Association. There is no reason why a course of lectures may not be given in the same way by representative men, men who will be sure to deal rightly with their subject and interest their hearers in the cause of true science.

We must of course begin in a small way and be prepared to profit by experience of the wants of the community, but we trust that ere long the system now being inaugurated will "grow in growth and strengthen in strength" until its influence for good is felt in our pulpits, our legislative halls, and by the daily press.

We are pleased to see that the American publishers of the Chemical News have added to the English edition a supplement, containing notices of the current progress of chemistry and the physical sciences in America, notices of new books, review of markets, movements of trade, etc. The December issue contained this new addition, which is under the editorial charge of Professor Charles A. Seely, of this city, who is well known in the scientific world, as one of our best analytical chemists, and a practical contributor to science.

Those gentlemen who desire to attend the next meeting of the American Medical Association in New Orleans, and intend to take a trip on the Mississippi, will be glad to learn that through the exertions of Dr. J. F. Hibberd of Richmond, Indiana, there is a strong probability of chartering a first-class steamer for their accommodation. The doctor promises more definite information in due time.

Reviews and Notices of Books.

TREATISE ON THE DISEASES OF THE EAR, including the Anatomy of the Organ. By ANTON VON TRÖLTSCH, M.D., Professor in the University of Würzburg, Bavaria. Translated and edited by D. B. St. John Roosa, M.A., M.D., Clinical Professor of the Diseases of the Eye and Ear in the University of New York, etc. Second American from the fourth German edition, pp. 565. William Wood & Co., New York. 1869.

SOME three years ago we noticed the first edition of this book, which contained about 250 pages. "This work has been out of print for some time, but circumstances beyond the control of the editor have prevented the earlier publication of the present edition."

As is remarked in the preface, "Although this volume is nominally a revised edition of the former one, it is in fact a new work."

The anatomy of the ear is very fully and distinctly given, and so much of actual practical interest is imparted in the anatomical descriptions that we are not wearied by the dry details.

The present translation is the most recent and readable book on diseases of the ear in the English language. It is of larger size than either "Wilde" or "Toynbee," and contains but a small number of histories of cases; these have mostly been inserted by the editor.

Since the publication of the above works, the means for diagnosis of the ear have been improved. Tröltsch fully describes the illumination of the external meatus and membrane of the tympanum by means of the concave mirror, thus avoiding the old-fashioned method, which required sunlight and a very supple neck to avoid shading the parts we wished to see; also Politzer's method of inflating the middle ear, which is so valuable for purposes of diagnosis and treatment. Siegel's aural speculum, Bishop's nebulizer for the eustachian tube, Politzer's manometer, etc., are all recent and in some respects very valuable inventions.

Tröltsch enters very fully into the diagnosis of aural disease; and by studying him carefully we shall find that very many of the affections formerly described as "nervous" are in reality due to organic changes of the middle ear, and that they are to some extent amenable to treatment. Accurate diagnosis and knowledge of pathological anatomy are of course necessary for the scientific physician; but a point of equal importance to him, and of much greater interest to the patient, is a means of successful treatment; and on this point we consider the present book as by far the most satisfactory work that has ever been printed on this subject. Hence we have no hesitation in heartily recommending it to students and practitioners, and believe that from it they will receive much valuable advice and many practical hints.

The book is divided into thirty-one lectures, of which the first ten treat of the anatomy and diseases of the external ear, including the drum; the next seventeen treat of the anatomy of and of the maladies peculiar to the middle ear and eustachian tube; while the last four chapters discuss the affections of the internal ear.

The general practitioner will be particularly interested in the remarks concerning the intimate relations between diseases of the pharynx and deafness, and on the use of the rhinoscope.

In very many autopsies of infants, Tröltsch has found the middle ear filled with pus, although no disease of the ear may have been suspected before death. It would be interesting to know in what proportion of infants these changes take place.

The old idea that it is dangerous to arrest discharges from the ear is shown to be founded on false deductions, and it is advised to arrest them by proper means. When speaking of "foreign bodies in the ear," the author very justly says that frequently the attempts made to remove them prove more dangerous than the foreign bodies themselves. The chapters on deaf-mutism and exostoses of the meatus are rendered much more interesting by very full notes of the translator. Through the book these notes abound, and some of them are very valuable.

We heartily congratulate the translator and publishers on the appearance of this book, and on its great improvement over the first edition. The style is free, and much more readable than translations are apt to be, typographical errors are rare, and the whole make-up of the book is very creditable.

Reports of Societies.

N. Y. PATHOLOGICAL SOCIETY.

STATED MEETING, Jan. 27, 1869.

DR. L. A. SAYRE, President, in the Chair.

HOW THE N. Y. PATHOLOGICAL SOCIETY ORIGINATED.

DR. SAYRE, the president-elect, on assuming his duties for the ensuing year, remarked, that as the father of the Society he had naturally felt the deepest concern in its prosperity, and was willing to do his utmost toward advancing its legitimate interests. Although it had not been the custom to make any remarks upon the occasion, he could not resist the temptation of taking a glance at the past and learning from it a lesson for the future. The Society was over twenty years of age, and from the humblest beginning had justly taken rank with the first scientific associations of the country.

When Dr. Sayre graduated in medicine, in 1842, pathology was taught at best in a very fragmentary way, the occasion being a stray specimen that fell into the hands of a professor; as a regular means of instruction it was not heard of in any institution in the country. Soon after he commenced practice he felt the want of a just interpretation of what he met with in autopsies, and resolved, for the sake of gaining the requisite information, to call in the aid of some medical friends and establish a society. Dr. John C. Peters, about this time, had just returned from Europe, as a pupil of Rokitansky and others. The idea was at once seconded by him and by Dr. Middleton Goldsmith, and meetings were held at the office of Dr. Sayre every Saturday afternoon. The material was furnished from the refuse of the dead-houses. After a while several other gentlemen became interested in the study, and very shortly after, a constitution and by-laws were adopted, and the N. Y. Pathological Society was fairly founded. For a considerable time the office of Dr. Sayre was the place of meeting, and in return for that honor it became his duty, not without considerable risk of the vengeance of the police, to deposit the specimens after the meetings, in the Hudson River. After a time, meetings were held in each other's houses, the number of members was increased and everything went on well, until it became the practice to have a supper provided after each meeting. It soon became evident that it was fast degenerating into a "bread and butter Society," and Dr. Sayre sought and obtained of Dr. Alex. H. Stevens, through the influence of the late Prof. Watts, the lecture-hall of the College of Physicians and Surgeons, then located in Crosby street, as a place for meeting. The trustees

of this institution have from that time until the present generously allowed the use of a meeting room—a period of nearly twenty years. The history of the Society since was well known; its reputation, in fact, is world-wide. Through its influence the institutions of learning throughout the country have been compelled to establish chairs of pathology, the first professor being Prof. Alonzo Clark, who gave his first lecture on that branch in 1847.

While the members had reason, with himself, to be congratulated on the prosperity and usefulness of the association, there was yet much more to be accomplished toward the fulfilment of its designs. In that connection he referred to the propriety of publishing the transactions in a becoming volume, and also to the practicability of having microscopes enough for the use of the members so arranged upon a table as that all would have a full opportunity of noting appearances for themselves. In conclusion, he thanked the members for the high honor conferred upon him, and hoped to make a suitable return by strictly fulfilling the duties of the office.

POISONING BY ARSENITE OF COPPER (PARIS GREEN).

Dr. Finnell exhibited the stomach, uterus, larynx, trachea and œsophagus, removed from a woman who poisoned herself with Paris green. She was delivered January 16th, of an eight months' child. Two days subsequently, on account of some family trouble, she resolved to commit suicide by taking the poison. The quantity she administered to herself was not known. Shortly after taking it she was seized with distress about the stomach, vomiting and violent purging. The physician who had attended her in her labor was sent for, and concluding that she had puerperal peritonitis, treated her accordingly for a period of eight days, when she died. The point of interest in the case was the singular mistake made in diagnosis.

At the autopsy the stomach was found intensely reddened throughout. The remainder of the digestive tract was uninjured, save a slight redness at the lower portion of the œsophagus. The uterus showed a distinct neck three inches long.

Dr. Flint remarked that a patient of Bellevue Hospital had attempted suicide by the same means. Two ounces of the poison were taken in that case, but it was so speedily ejected that only a temporary gastritis remained.

Dr. Finnell remarked that Paris green was getting to be a very fashionable poison, the reason being that it could be procured without any trouble from the nearest paint-shop.

ANEURISM OF THE ARCH OF THE AORTA.

Dr. Briddon presented a specimen of aneurism of the arch of the aorta removed from a man 42 years of age, who suddenly died, without any premonitory symptoms. At the autopsy an aneurism of the arch of the aorta was found to have ruptured into the pericardium through a very small opening on the under surface of the vessel, immediately below the point where its branches are given off to the neck. The whole of the artery in the neighborhood was very much thickened with patches of atheroma.

VESICAL CALCULUS.

The second specimen was a vesical calculus, removed by lateral lithotomy from a boy six and a half years old, who had suffered from the usual symptons for three years. He had not been sounded before Dr. B. saw him.

AN UNUSUALLY HEAVY BRAIN—SOFTENING OF SPINAL CORD.

Dr. Hewit exhibited a brain and also a spinal cord. Both were of considerable interest, more especially the former, which had the remarkable weight of *sixty-five and a half ounces*. The spinal cord showed two spots of well-marked softening throughout its course, and was very handsomely prepared by Dr. W. J. G. Dawson, the House Surgeon of Charity Hospital.

The patient, from whom they were removed, was a Frenchman, æt. 26, who, although of noble birth, was forced, by misfortune, to earn his own living. This he chose to do by the profession of a decorator, which he is said to have acquired in a surprisingly short time. He was admitted to Charity Hospital, January 6th, 1869, complaining of pain and dizziness of the head. He had previously had an attack of syphilis, and in fact had been treated for the secondary symptoms in the same institution last fall. The dizziness in his head was so considerable that on one occasion he fell in the street. Shortly after his admission, while in the water-closet, he fell powerless upon the floor, and on being carried to bed he was found to have lost the power of motion in his left leg. Sensation was also very much diminished in the part. The headache continued, and iodide of potassium, in suitable doses, was administered. A draught, composed of bromide of potassium (3 ss.) and spts. camph. (3 j.) with ℥ ij. of water was given at bedtime. On the 15th of January, his left leg became quite rigid, the pupils were unequally dilated, and he began to talk incoherently. During the previous night he had slight convulsive movements of the limbs. On the 16th, he complained of a good deal of pain, mostly in his head, and he lost power over his left arm. On the 17th he had another spasm, the left side of his face became slightly paralysed. The right pupil was much dilated, the left considerably contracted. Subsequent to this he passed into a stupid condition, followed by a coma with occasional convulsive movements, and finally died on the 18th inst.

The brain was the property of the Charity Hospital, and the exhibitor did not feel warranted in cutting into it to ascertain if a tumor was the cause of the great weight of the organ. He, however, promised to report upon the specimen more fully in future. The head was quite large, and the calvarium was very hard and compact. No traces of injury were discovered in any part of the skull. Some softening was found on the surface of the right hemisphere near the longitudinal sinus, in the substance of the corpus callosum; also a patch of softening on the surface of the left hemisphere.

The membranes of the spinal cord were very much congested. Two patches of softening existed in the substance of the cord on a level with the fifth and tenth dorsal vertebræ; the first, about one inch, the second, about two inches in length.

CARNIFIED LUNG—EMPYEMA.

Dr. Lewis Smith presented a specimen of carnified lung removed from an infant who died at the age of four years and four months. This child was scrofulous, but had been in pretty good health until the latter part of May last, when it was attacked with scarlet fever. This was of the anginose variety, attended with inflammation and suppuration of both sides of the jaw. During the month of June, the little one began to convalesce, but the abscesses still continued to discharge. In the beginning of July, pleuritic inflammation commenced on the left side accompanied with the usual physical signs. This continued without any decided change during the month of July, about the latter part of which

anasarca of the ankles appeared and soon extended upwards. The œdema was confined to the lower extremities and the abdominal walls. By the middle of August, this condition of things had become extreme. After the pleurisy had existed for a few days, an examination of the chest revealed the left pleural cavity two-thirds full of liquid. On the 7th of August a careful examination was made with the view of deciding upon the practicability of performing paracentesis. Inasmuch, however, as the fluid was found to have decreased and bronchial respiration had commenced to show itself, the operation was not advised. Death occurred on the 27th of August.

On making the post-mortem examination, the right pleural cavity was found in its normal state, with the exception that it was somewhat encroached upon by the mediastinum and heart. The left pleural cavity contained three pints of pus, which was quite thick, while the lung itself was completely carnified.

There was no effusion in the abdominal cavity, but the abdominal walls were very much infiltrated with serum, especially towards the spine, where they were three or four inches in thickness.

The ascending vena cava was found almost entirely plugged up with a firm clot of a yellowish-white appearance. This was a point of considerable interest, as throwing light upon the origin of the dropsy. The only explanation that could be offered was that the displacement of the heart to the right side pressed upon the vena cava ascendens, causing by such pressure a passive congestion of the lower extremities, and in the end occlusion of the vessel by a clot.

Dr. Flint presented specimens of gouty deposits on the inner surface of the patella and in those bones forming one of the metatarso-phalangeal articulations. The incrustations were found to be composed of pure urate of soda.

The patient was admitted into Bellevue Hospital of an evening, and was found to have pericarditis. Along with this was a moderate amount of œdema of the limbs and swelling of the joints. He died the day subsequently of the disease, and considerable fluid and recent lymph were found in the heart-sac. The kidneys were also subject to fibroid degeneration.

EBURNEOUS ORBITAL TUMORS.

Dr. Knapp presented two specimens of eburnaceous tumors of the orbit, and made the following remarks thereon:

I have the honor to show two specimens of *eburneous exostosis* of the orbit. The first I described six years ago, in Graefe's Archives, and shall, therefore, only mention it here.

It was a tumor, the size of a large egg, of compact bone, projecting from the roof of the orbit both into the latter and the cranial cavity. It produced a high degree of exophthalmus, and periodically, cerebral symptoms. I operated on it, but was unable to remove more than a small portion of it, by means of chisels and Heine's osteotome. The patient died eleven weeks later from purulent meningitis.

The other case was that of a healthy boy of eight years, who gradually and without any symptoms of uneasiness, perceived a hard, round swelling at the inner and superior part of the orbit, producing dislocation of the eyeball downward and outward. The motion of the eye toward the glabella was checked, but sight was perfect. From the hardness and slow growth of the tumor, I derived the diagnosis of an *exostosis*, which, in this region, is mostly of the *eburneous* kind. As the intumescence was not yet very large, about the size of a walnut, and no cerebral symptoms were present, I thought it probable the tumor might be purely orbital and advised its removal, which was granted. I made a curved incision at the inner portion of the orbital margin, dividing all the coverings of the tumor, including the periosteum. The growth proved to be hard bone. I divested it carefully of the periosteum, and then hammered a groove into it, just at its basis, by means of a small chisel. In doing so, I found that the tumor soon became loose and I was able to remove it entirely, without needing any other instruments.

I closed the wound with sutures, leaving a small portion of it ununited for the exit of pus. Suppuration, however, did not occur. There was but little swelling during the first three days, and after a week the boy could be dismissed. Diplopia existed some days after the operation, but disappeared, together with the swelling. The patient has since that time never had any trouble from his eye, and till now, three years after the operation, no sign of a return has been noticed.

The specimen before you, a tumor the size of a walnut, is of hard, compact bone, and remarkable for its rather small basis, with which it was attached to the roof of the orbit. At its outer part there is an impression, produced by the tendon of the superior oblique muscle passing over this side of the tumor, which tendon I took great care not to injure during the operation.

Although most cases of orbital exostosis invade the neighboring cavities, I think we are entitled to operate on them, as long as there are no cerebral symptoms prevailing, and this case shows that the operation, when performed at an early period, may even preserve the integrity of the eye, and contradicts the assertion of some authorities, that eburneous exostosis of the upper wall of the orbit ought to be for the surgeon a "noli me tangere."

CARCINOMA OF MAMMARY GLAND IN MALE, ETC.

Dr. Neftel exhibited a specimen of cancer, and remarked upon it as follows:

This has been removed from a gentleman sixty-five years old, who a year ago consulted Nélaton and other distinguished French as well as English surgeons with regard to a tumor in the left mamillary region. They all advised him not to undergo an operation, for it would be dangerous and useless. But Dr. Sims, who was at the time in Paris, extirpated the tumor, and the wound healed mostly by first intention and partly by granulation. The patient was quite well until recently, when he observed enlarged and indurated glands in the left axilla. He again consulted Dr. Sims, who last week performed the operation as successfully as the first time. The patient was not put under the influence of an anæsthetic; every diseased part was carefully removed, and no hemorrhage occurred during the operation. The wound is now healing by granulation, and the patient is doing very well. I have made the microscopical examination and found cancer of the axillary glands. In this specimen can be traced all the stages of development of cancer. In the recently affected glands the connective tissue is increased and its cells are proliferating. In those previously attacked the interstitial tissue has already disappeared, making room for cellular elements alone, and in glands still longer affected the cells are undergoing cheesy metamorphosis. The cells present a polymorphous shape, with large nuclei and several nucleoli. But generally speaking, the appearance alone of the cells, their shape and size, is not characteristic of the nature of a tumor. There exist no specific cells—cancer cells or tubercle cells—as was formerly thought by Lebert and is still now admitted by the French school; but it is the type according to which the cells are

arranged, their relation to the interstitial tissue, and the homology and heterology of the new formation, which show its nature and the degree of malignity.

Another point of interest in this specimen is its relation to the general condition of the system. As we all know, the humoral pathologists consider every malignant tumor as the expression of a constitutional affection, of a diathesis or dyscrasia; whereas the modern pathologists, on the contrary, take it as a local disease, which can become constitutional by propagation either through the lymphatics and veins, or by transplantation (a detached particle infecting a new place).

The patient from whom this specimen has been taken stated that he first noticed a pimple, which he ascribes to the irritation caused by a heavy pocket-book he was in the habit of carrying on the left side. This pimple gradually enlarged, but remained local for a long time, when the axillary glands became affected, and from these latter the contagion would have been propagated through the efferent lymphatics into the thoracic duct and general circulation.

Stated Meeting, Feb. 10, 1869.

Dr. L. A. Sayre, President, in the Chair.

TUMORS OF UTERUS—PHLEBITIS AND PERITONITIS.

Dr. Finnell presented the uterus of a colored woman, aged thirty-five years. Four weeks after the delivery of a healthy child the patient was seized with symptoms of peritonitis, which gradually increased, finally ending rather suddenly in her death two weeks after.

At the autopsy an abundance of pus, serum, and fibrinous exudation, was found occupying the abdominal cavity. There was a fibrous tumor the size of an egg, growing from the posterior face of the organ, and also what appeared to be a similar growth in the substance of its walls. This latter, on being cut into, was discovered to be more or less filled with pure pus, the result of an inflammatory degeneration of the part. There was no communication between this cavity and the peritoneum, although it appeared that the serous inflammation started from that point.

Dr. Knapp was inclined to the belief that the pus came from the cavities of the vessels and was the result of a phlebitis, an opinion concurred in by Dr. Jacobi.

SUSPICIONS OF POISONING—GRANULAR KIDNEYS AND HYPERTROPHIED HEART.

A second specimen by Dr. Finnell was a stomach and kidneys removed from a man, twenty-six years of age, who had been suffering from gout in both feet. He had also had attacks of convulsions evidently uræmic in character. Before his death there were besides marked evidences of granular disease of the kidneys.

Owing to some family troubles he was suspected, on account of rather persistent vomiting, to have poisoned himself. He was accordingly treated with the sesquioxide of iron, but died soon afterwards.

At the post-mortem examination the stomach presented a remarkably intense and even injection of its mucous membrane. All the usual evidences of arsenical poisoning in the shape of patches of redness and arborescent injection were wanting. A large quantity of the sesquioxide of iron was found in the cavity of the organ.

The kidneys taken from the same patient weighed respectively an ounce and a half and two ounces, and their capsules were firmly adherent. In one of the kidneys there were noticed some small tumors looking like cysts with their contents dried. The man had also an hypertrophied heart, weighing over a pound, and without any valvular lesion. The kidneys had been preserved in an unusually strong solution of carbolic acid, and were in consequence much shrivelled.

Dr. W. B. Lewis remarked that simple hypertrophy of the left kidney was one of the commonest phenomena attendant upon granular disease of the kidney, as was also that of vomiting. In this latter connection he referred to a case of rupture of the heart reported by him (vide Medical Record, Vol. II. p. 412), nearly a year ago, in which all the prominent symptoms of the patient's previous troubles pointed toward a disease of the stomach. Although no examination of the kidneys was made at the autopsy he had subsequently learned from Dr. Roosa, who had made an ophthalmoscopic exploration of the patient's eyes, that the characteristic degeneration of the retina was present, leaving no doubt that granular renal disease existed, which amply accounted for the gastric trouble.

A NOVEL METHOD OF EXTRACTING URETHRAL CALCULI.

Dr. Finnell, thirdly, exhibited the kidney and portion of the urethra removed from a very fleshy man, forty years of age, a waiter in a dining-saloon, and a heavy eater and drinker. The patient suffered very greatly during his lifetime from the passage of urinary calculi, and at times so much pain was occasioned as to compel him to take large doses of opium for relief. He had also accustomed himself at times to push back the calculi from the urethra into the bladder, by means of a small-sized catheter. When the stones were so situated that this could not conveniently be done, a looped wire was passed through the canal over the foreign body, and so it was withdrawn. From much use the end of the catheter became worn through, and the point of its contained wire would sometimes lacerate the delicate membrane, as would also the wire loop already referred to.

On making the autopsy, both kidneys were found very much degenerated. One of these organs had each calyx occupied by a small calculus. Impacted in the urethra was a good-sized stone which, it seems, the patient was unable to move to or fro. The urethra showed evidences of fresh lacerations, as the result of the patient's desperate endeavors to free himself of the obstruction by means of his instruments. Death was occasioned by uræmic poisoning.

Each of Dr. Finnell's specimens was, on motion, referred to the Microscopic Committee.

THE BEST PRESERVATIVE FOR MICROSCOPICAL SPECIMENS.

Dr. Wm. B. Lewis remarked that solutions of carbolic acid, as ordinarily employed, were altogether too strong for the purposes of examination of the specimens by the microscope. He spoke more particularly of the solutions of a drachm to the pint and upwards. He preferred either a weak straw-colored solution of chromic acid, or a saturated solution of bichromate of potash for the purposes named.

Dr. Squibb, by invitation, remarked that the weakest solution of carbolic acid mentioned by Dr. Lewis (℥j.—Oj.), was still too strong. Such a solution was nearly one per cent., while one of half or even one-quarter of that strength would have an equally antiseptic effect and would have the advantage of not being corrosive.

Dr. Knapp spoke of the antiseptic qualities of Muller's preservative fluid, which was composed of from two to three per cent. of bichromate of potash and one per cent. of sulphate of soda.

Dr. Cutter presented a heart, the supposed seat of cancerous deposit, removed from a German, forty-five years of age, who had died of cancerous infiltration

of the stomach, omentum, kidney, spleen, pancreas, and lungs. He had made no examination of the heart, and only presented it for the purpose of having it referred to the committee on microscopy. It was, on motion, so referred, after which the Society went into executive session.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

ADJOURNED MEETING, FEBRUARY 8, 1869.

DR. GEO. T. ELLIOT, President, in the Chair.

THE PRESIDENT, at the request of the Society, gave a brief account of the recent meeting of the State Medical Society, in the course of which he stated that several important papers had been there read by members of the County Society of New York, and accepted for publication.

SURGERY OF THE CERVIX.

DR. THOS. ADDIS EMMET read a long and important paper upon *The Surgery of the Cervix, in connection with the Treatment of certain Uterine Conditions familiar to all.* As it is to be published in full in the *Am. Jour. of Obstetrics* for February, we shall here merely indicate a few of its points.

Dysmenorrhœa and sterility had been too indiscriminately treated by division of the cervix, though there were certain cases which required it. Where they were dependent on flexure, this might be due to interference with the uterine circulation—a kind of chordee. They might depend upon causes wholly extra-uterine. The treatment must vary with the cause. In erosion, with follicular disease, large vaginal injections of hot water were invaluable as preparatory to other treatment, such as various topical applications to the cervix, by means of the "applicator," or intra-uterine injections. Dr. Emmet's favorite remedies, with their method of application and the conditions calling for them, were described at length. Other treatment failing, an existing flexure might be considered due to mechanical causes and demand surgical interference. The forms of flexure specially belonging to the unmarried and to the married condition, their consequences, their operative treatment, and its general results, were detailed. The paper dwelt upon the very different treatment required for anteflexion and retroflexion, and the serious effects that had followed a neglect of this distinction. It noted the bad results of the lateral division of the cervix, as well as of its lateral laceration in childbirth, with the appropriate treatment. It gave the indications for amputation of the cervix, and the precautions necessary to be observed in this operation. As cauliflower growth and malignant disease were now considered to be purely local in their origin, they might probably be effectually and permanently cured by amputation, if only they could be discovered and treated in their initial stages, before infiltration of the surrounding parts. The evils resulting from the abuse of caustics and the actual cautery, converting the cervix into "a mass of cicatricial tissue," claimed notice; and the surgical treatment to which alone the bad cases would yield. Follicular disease often brought about a similar condition, requiring the same treatment. Either one, if overlooked, might lead to the gravest impairment of the general health and become the origin of phthisis.

DR. NOEGGERATH.—Dr. Emmet appears to consider flexure of the uterus as an effect of inflammatory disease. He compares the anomalous condition of the uterus with a chordee. From this we are led to think that the inflammation, originally seated in the mucous lining of the cavity, spreads to the tissue proper, bringing about a deposit of lymph in some portion of either the anterior or the posterior wall of the uterus. This, in its further development, produces ante- or retroflexion; or we might assume, according to the doctor's views, that the congestion and softening of tissue, in connection with an inflammatory condition of the mucous membrane, brings about the altered position of the organ. This latter explanation is somewhat similar to that proposed by Rokitansky, who, in opposition to the views of Virchow, explained flexion as a result of disease and hypertrophy of the mucous crypts, which, as Dr. Emmet correctly states, are found to exist even above the inner os. Rokitansky believes that the gradual enlargement of these mucous glands, by their pressure on the fibres of the muscular tissue, causes the latter to become atrophied and to lose their power to keep the womb in its erect position. The treatment employed by Dr. Emmet for the relief of symptoms seen in connection with ante- or retroflexion, is apparently a very efficient one, and goes very far to corroborate the views proposed on this matter. It even seems to me that the doctor has based his pathogenetic theories on the effects of his generally so very successful treatment. It would take up too much of the time devoted to a discussion of a paper read on the same evening, to enter into all the merits of the question before us. I will therefore only briefly state my conviction, gained by experience of fifteen years' observation, that flexion is never the direct effect of an inflammatory action, be it of the lining membrane or of the uterine tissue itself. It is my firm conviction, that the symptoms of irritation present in cases of dislocation are either the effect of flexion or mere coincidence, aggravating all the signs of disease usually found in cases of ante- or retroflexion. This explanation is apparently in opposition to the view expressed above, as to the efficiency of treatment directed against the sources of irritation. But, if I admit that Dr. Emmet relieves all the symptoms seen in cases of dislocation, that he cures his patients, I deny that he produces the slightest effect in altering the position of the uterus; and I have not the least doubt that out of a hundred women afflicted with anteflexion, not more than thirty per cent. are aware of the existence of uterine disease. An uncomplicated anteversion or anteflexion usually produces no symptoms whatever. Thus, I only differ with Dr. Emmet in regard to the pathological origin or clinical importance of dislocations. With regard to the method and value of his treatment, I have hardly a word to add.

As regards the necessity of rest in bed, for days after the application of caustic remedies to the womb, with the view of avoiding accidents, I think the doctor exaggerates its importance. Severe inflammation of the peritoneal lining of the uterus will occasionally follow the use of caustics, no matter how the patients are treated afterwards. I know that such cases do occur where the greatest possible care is taken to avoid them—they occur even in Dr. Emmet's institution; and it is my belief that the average amount of pelvic peritonitis, following the use of strong intra-uterine applications, is just as large where the patients are kept in bed and guarded against cold, as where they are allowed to be about, as soon as the immediate effects of the application, which last from one to six or eight hours, have passed over. It is of some importance to have this point decided. Suppose a physician in town applies a solution of some strong caustic to the canal of the body of the uterus, and the patient has an attack of peritonitis, from which she may either suffer for years or die in consequence, Dr. Emmet and his followers will accuse the doctor having charge of her case, of carelessness, if he

has omitted to have the patient in bed for at least a week. Now my own experience has taught me that this great care is unnecessary. I always apply the chromic acid in my office and allow my patients to walk home. Last Saturday week I saw a woman from Seventy-first street, near Second avenue. I used a solution of the acid one part to two of water. She rode home immediately after the application, lay down for three hours on her bed, and then went about as usual. I saw her again last Saturday, and when I found that the effect of the acid had not yet subsided, I made no further application. I have done this repeatedly, and do not think that I meet with more accidents than gentlemen who take great pains to prevent them. You will meet, from time to time, with a uterus where the use of caustics or astringents to the upper cavity is followed by perimetritis. The two most severe cases of inflammation which I have seen follow the use of caustic solutions were observed in two women, both of whom were kept in bed during and after the application.

The sweeping condemnation of pessaries by Dr. Emmet, is not justified by the experience of others. Thus Prof. Martin, of Berlin, reports, in his work on versions and flexions of the uterus, ninety-seven cases in which he treated anteflexion by this means. In only three instances had he to remove it on account of excessive pain or hemorrhage. In ninety-four cases the instrument was worn from one to nine months; forty cases were cured permanently; in fifty-four cases decided improvement, especially as regards dysmenorrhœa, was observed. Sixteen of these wore it from three to twenty-one months. But there are, in this city, numerous physicians and gynæcologists, myself among the rest, who are in the habit of employing these instruments with marked benefit to their patients; and certainly pelvic cellulitis cannot be considered an ordinary effect of the introduction of a pessary.

As a general result of the first part of Dr. Emmet's paper, we may state that there exist cases of dysmenorrhœa and sterility, with or without flexion, the greater part of which can be cured by relieving the catarrhal swelling of the mucous membrane, and the consecutive congestion of the uterine tissue proper; while in some few the constriction or spasm at the inner os does not yield to any other treatment than surgical interference. We must certainly welcome an avowal of these principles, by which the operation of incising the neck is reduced to very restricted limits; it denotes a most unmistakable progress in American gynæcology. This change of view regarding the indications for surgical treatment is the more noticeable and important, since professed by a man who has usually been considered one of the principal advocates of the purely surgical treatment of uterine diseases.

That retroflexion in the second and third degree can be radically cured by the treatment just mentioned, I have no reason to doubt, since the doctor assures us so. The management described can, however, only be successfully resorted to in a private hospital. We other practitioners cannot afford to see a case of retroflexion daily, nor can we demand of the patients to keep for a length of time in a certain position. The average class of patients who apply for the relief of retroflexion, have their daily duties to perform in the household. We are therefore compelled to treat their cases differently. In recent cases, that is to say, from three to six weeks after confinement, we succeed in replacing the womb forever, by the use of Sims' instrument, and even this need not be applied oftener than every third or fourth day. Where the disease has lasted for years, we employ Hodge's, or Scattergood's, or Coulter's pessary; and in most instances without any preparatory treatment, since all the symptoms of irritation, tenderness, and so on, disappear without any further treatment.

The remarks of the doctor with regard to bilateral section and eversion of the cervix, can be verified and corroborated in a great many instances. A second operation is usually necessary to do away with the ill effects of the first one.

In treating of the several indications for the amputation of the neck, I am somewhat disappointed to find that its amputation for the cure of chronic metritis of the body, in the second stage of development, has not been mentioned by the doctor. The value of all the other indications has never been doubted; in all those nobody ever denied the justifiability of amputating the neck. I know that the operation has been performed in the institution under Dr. Sims as well as under Dr. Emmet. Its value is not yet fully decided, its efficacy doubted by a great many. Ever since Dr. Braun, of Vienna, demonstrated microscopically, in a paper published in 1864, in the *Wiener Med. Jahrbücher*, 1st vol., that the tissue of the hypertrophied body of the uterus underwent a fatty involution after amputation of the neck, I have performed this operation several times; and I may say, without being able to give at present any detailed account of the cases, that the operation in no instance did any harm; and further, that the great majority were considerably benefited, and three of the cases entirely cured, after all sorts of treatment had been applied previous to the operation without the slightest benefit.

As regards the method of operating, I consider the covering of the stump with vaginal flaps an unnecessary complication. Dr. Emmet believes that it is more apt to prevent recurrence of malignant disease than any other method of treating the stump. The same views have been cherished by surgeons in cases of amputation of the breast. When Dr. Martinet de la Greuse first made the proposition, in 1834, to cover the wound left after removal of the mamma by transplanting some of the skin from its neighborhood, the proposition was generally received with great favor. French, as well as German and English, surgeons followed out his suggestion. But nowadays the method is generally abandoned as useless. I think the same holds good with regard to the cervix. If all the diseased portion can be removed, it is immaterial whether we cover the stump by transplantation or not. After three or four weeks it is impossible for any one to judge, from the appearance of the stump, whether it was left to heal by granulation, or was covered. If not all the cancerous tissue can be excised, it is better to leave the wound open, in order to destroy, by heat or caustics, any unhealthy-looking granulations. Nor does covering the stump even prevent severe hemorrhage; and I think Dr. Emmet plugs the vagina, and applies cotton with the subsulphate of iron after every amputation, to guard against this occurrence.

The only safe method of operating is amputation of the neck by a loop of platinum wire heated by electricity. The cut is always as smooth as that with a knife; and neither during nor after the operation does the slightest hemorrhage occur. After having used the electric cautery now in four instances, I am so satisfied with its effects that I shall never exchange it for any other method. Whoever has seen what an amount of blood is occasionally lost after cutting off the neck with scissors, simply from the fact that the plug is expelled by vaginal labor-pains, will accept, without

hesitation, a mode of operating which has all the advantages, and none of the drawbacks, of other methods.

In making these remarks, Mr. President, I have somewhat taken the part of an advocatus diaboli, but only for the purpose of showing the several points proposed in Dr. Emmet's very elaborate and highly interesting paper in a new light, in order to give occasion for further discussion.

(*To be continued.*)

Correspondence.

OBSCURE CASES OF SUDDEN DEATH.

To the Editor of the Medical Record.

Sir — Many physicians, and particularly those who make post-mortem examinations for coroners, will frequently meet with cases of sudden death, I might say, *instantaneous* death, for which they can discover no satisfactory cause, neither in the symptoms immediately preceding it, nor in the appearance of the body on autopsy. An individual man, woman, or child, without a premonition of any kind, suddenly utters an exclamation of surprise, perhaps of pain; or, it may be, entirely without warning sinks to the earth. Those near him hasten to his assistance, and find him either entirely dead, or drawing his last breath. In some instances the premonitory symptoms are slightly more marked, or of greater duration, but are not such as point to the solution of the manner of death. A post-mortem examination is made. The body has the external appearance of robust health. Every organ is carefully examined, and found to be in a perfectly normal state, and the indications of health are as well marked in the interior as was the case in the exterior of the body. What is the cause of death?

The solution of this question is required, I estimate, in full, fifteen per cent. of cases of sudden, or, more properly, instantaneous deaths, and probably in a larger percentage. Without doubt, a great proportion of sudden deaths ascribed to valvular disease of the heart—to uræmia—to serous apoplexy, and to other causes, only occasionally proving suddenly fatal, really belong to this class of obscure causes under consideration. Physicians making examinations, unaware of the frequency of the existence of these causes, naturally ascribe death to a diseased condition, be it ever so slight, of almost any organ.

There are many cases of sudden death, the causes of which become easily apparent on autopsy, as many diseases of the heart, rupture of aneurisms, cerebral apoplexy, etc. I confine myself to those only in which nothing is found to explain the fatal termination; and it is these that I designate "obscure cases of sudden death." Some few authors have given attention to this subject; yet, it appears to me, without throwing much light upon it, or towards clearing up the mystery that surrounds it. The explanation that has been given in many of these cases, is certainly very unsatisfactory. Some of them I propose briefly to notice.

Fatty degeneration of the heart. Too many pathologists of note ascribe death to this disease to make it doubtful that it is a cause. This degeneration of the organ very frequently exists, yet death is seldom traced to it. Sudden deaths, at any rate, not occurring as a rule, in subjects with this affection, should make us exceedingly careful in ascribing such deaths to it even when we find its existence well marked.

Other affections of the heart are, of course, very numerous, and I only allude to them to remark that death is undoubtedly often referred to them when they are insufficient for its cause. Disease of the heart, according to vulgar and even learned opinion, has to answer for many sudden deaths of which it is entirely innocent. Rheumatism of the heart has been mentioned as terminating suddenly in death, and leaving no traces to show its cause; but we know that rheumatism of the organ pursues a course which gives plain indications of its existence in life, and produces pathological changes easily recognized after death. Paralysis of the heart is said to be accountable for sudden death—but this is a mere hypothesis.

Embolism might explain death in some instances where the clot is so large as to considerably obstruct the heart's action—but, obstruction to a single large vessel of the brain should not be sufficient explanation for death. No more serious results should follow a plug in such vessel, than stopping the flow of blood through it by a ligature.

Accumulation of flatus in the stomach—fatty degeneration of the diaphragm—engorgement of the lungs and congestion of the brain, have been given among other causes, but they fail to offer a satisfactory solution of this mode of death. As regards these two latter causes, I may state that it is not unusual to find hypothetic congestion of the lungs strongly marked, and fulness of the cerebral vessels, but these I consider due to the fluidity of the blood—the blood being almost unexceptionally fluid in these as well as other cases of sudden death.

I have been actuated in bringing the attention of the profession to this subject, by the hope that some suggestion may be elicited as to what manner of inquiry should be adopted in studying this strange phenomenon. Although I have seen a large number of cases of this class, and have had the assistance of able pathologists in their investigation, I am entirely unable to say more in regard to the appearances found, than stated above: that the entire system has presented no deviation from sound health.

Yet some morbid change has taken place as completely and suddenly fatal as an extensive rupture of the heart, or a hemorrhagic effusion around the medulla oblongata.

Wooster Beach, Jr., M.D.

TUMOR SIMULATING ANEURISM.

To the Editor of the Medical Record.

Sir—The case of a cervical abscess simulating thoracic aneurism reported by Dr. O'Sullivan in a recent number of your journal recalls to my mind a somewhat similar case in my own practice, which may merit brief record.

G. McW., æt. 71, had been suffering for several weeks from severe and frequent attacks of sub-epigastric pain, under the care of a homœopathist. When I was called to see him, I found a man of perfectly healthy appearance, with the digestive and secretive functions in normal action. The attacks of pain had been of irregular occurrence, growing more frequent of late, lasting for two, three, or four hours, and generally showing great severity. No other morbid phenomena attended. On examining the belly, I found deep in the painful region a tumor whose size and other qualities and relations could not be well ascertained, owing to the corpulence of the patient. It had a marked heaving impulse with the action of the heart; whether it was distended with that impulse it was not easy to judge, as it could not be satisfactorily isolated and grasped, owing to the depth of its situation and its fixedness. To the stethoscope it revealed the most distinct

aneurismal *bruit* that I had ever heard, *at times*. Repeated trials did not enable me to produce it by the pressure of the instrument.

I diagnosed the disease as "probably aneurism;" the consulting physicians, Dr. A. Van Dyck and Dr. A. S. Coe, were of the opinion that it was probably something else. About a fortnight before the death of the patient he became deeply jaundiced. The occurrence of this symptom, due sometimes to the pressure of abdominal aneurism, did not divert me from my preconception that the tumor was an aneurism—such deep impression had the *bruit* made on my mind. I took the precaution, however, to tell the friends of the patient that gall-stones would account for most of his symptoms, and was the next most probable explanation of his case.

On post-mortem examination we found overlying and literally grasping the aorta, to which it was firmly attached, an oblong, fibrous tumor, with its ends dipping down each side of that vessel. The gall-bladder was filled and distended by one immense gall-stone.

C. C. P. Clark, M.D.

Oswego, N. Y.

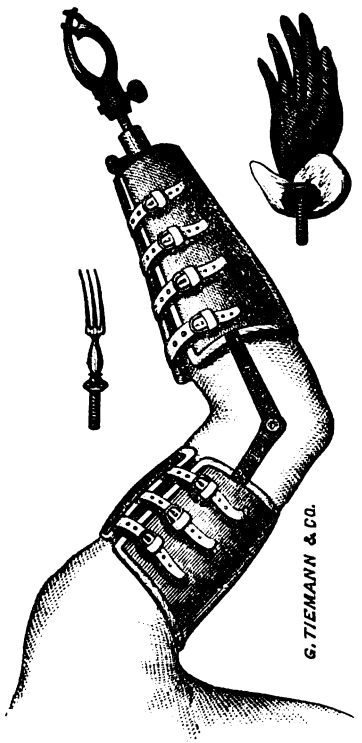
New Instruments.

A SUBSTITUTE FOR THE HAND.

By David Prince, M.D.,

Jacksonville, Illinois.

It has been a desideratum to provide a substitute for the hand which will enable a person to hold a pen or pencil, and with the same instrument to grasp the handle of a hoe or shovel. In 1864 I explained my plan



to Mr. Stohlmann, of the firm of Tiemann & Co., of New York. Mr. Stohlmann entered with enthusiasm into the idea, and produced an instrument which combined the two points of usefulness, the capability of grasping small objects like pins and pencils, and objects of considerable size, like the handle of an axe or hammer, a whip, &c.

A conception of the instrument will readily be obtained by a glance at the cut. The apparatus is fastened to the investment of the limb by means of a screw, and by aid of the other hand, it may readily be replaced by a fork, if it is not preferred to hold the fork in the grasp of the instrument, or a gloved hand can be screwed on in place of the useful instrument.

The fenestra is for holding a whip or hammer, and its size is regulated by a screw, so as to fit objects of different sizes. Small objects are held in the fork at the ends of the fenestra, and by screwing down more or less the lever which constitutes one side of the fenestrum, the grasp can be accommodated to the size of a needle or a pencil.

The instrument is represented in the cut as not quite closed for very small objects.

The screw, which constitutes the shank of the instrument, is so arranged that it can be made stationary, a necessary condition in holding a whip or a hammer, or left to rotate, as would be necessary in holding the handle of a plough.

It will be seen that the instrument has great variety of adaptation.

There is an elastic strap which is attached to the chest to hold the investment of the arm, and to prevent the whole apparatus from sliding off in pulling or in carrying a weight.

The instrument is very far from being an adequate substitute for the natural hand, but it is believed that it combines the utility of a grasp for large objects combined with the capability of holding small things better than any instrument which has yet been devised.

TRANSFUSION OF BLOOD AND OTHER LIQUIDS.

By GEO. M. STERNBERG, M.D.,

Assistant Surgeon and Brevet Major U. S. A.

Sir—I desire to call the attention of the profession to the subject of transfusion of blood or other liquids as a therapeutic measure. I have no facts to present, as I have not been so situated as to be able to experiment myself. But it seems to me that there is great room for progress in this direction, and that the time may come when the operation will be a common and very useful one. It has never yet been practised extensively, but the results so far as published certainly promise well. How many patients we see die for want of the life-sustaining fluid—good, rich blood! Women who only pass through the pains of childbirth, to be carried off by post partum hemorrhage—the hemorrhage controlled perhaps by proper treatment, but controlled too late—and the interesting patient passing away before our eyes for want of sufficient blood to carry on the vital process, when perhaps a husband or a brother could spare them a sufficient quantity of rich blood without suffering from the loss.

Patients who have sustained a siege from some exhausting disease, giving way just when the disease itself has about run its course, and when a little more vitality would have brought them safely through. Perhaps a few ounces of blood from a friend's arm might have saved them. Others who have sustained severe injuries or surgical operations, dying when all the difference between life and death may have depended on the want of a few ounces of blood, which we could have furnished them. Why may we not in such cases, where their own blood can be saved, return it to the circulation through a vein after having defibrinated it?

The loss of the fibrin would seem to be no disadvantage, as hemorrhage increases instead of diminishing the quantity of fibrin in the blood. Again, where the vitality is just sufficient to carry the patient through an attack of sickness, or a serious operation, might not a few extra ounces of blood hasten a complete convalescence, or prevent the occurrence of consecutive diseases resulting from a low vitality?

In cholera, it seems to me that the injection of water and chloride of sodium into the veins has been attended with results sufficiently encouraging to warrant a further trial. If the injection could be gradual and continued, so as to replace, if possible, the fluid transuded through the coats of the intestines as fast as it is lost; and if the operation were resorted to early in the disease, before collapse has taken place, might we not hope to prevent the occurrence of collapse and to keep the circulation going until the force of the disease was expended, or the morbid product (if such there be) eliminated?

When we come to know more about the changes of the blood in disease, we may find this the best way to supply substances which are deficient, or to neutralize those which are hurtful.

I have devised an apparatus for the injection into the veins of the defibrinated blood or other liquids, which, I think, would be safe and convenient. I am not so situated at present that I can have an apparatus made after my plan, nor would I have the opportunities for testing it that occur in our large cities, but I submit the plan to the profession, in the hope that if it meets the approval of any one, an apparatus may be made and fairly tested, and the results made known.

Figure 1. A., a graduated glass jar to hold 12 fluid ℥ of the fluid to be thrown into the vein; terminating below in the metal tube (silvered) I., opened and closed by stopcock E.; covered above with an air-tight cap, perforated by tube H., and long funnel C.

B. Outer glass jar, to hold heated water for regulating the temperature of liquid in graduated jar A. Water may be poured into the top of the outer jar, and drawn off by stopcock F. The bottom of jar B. should be of metal, so that the metallic lower extremity of jar A. may be screwed into it; and when not in use, the two jars may be separated for packing.

G. Thermometer attached inside of jar A.

D. Handball apparatus of Richardson's Atomizer for forcing air into jar A.

Figure 2. A. silver canula from which projects lancet B. The end of canula bevelled down, so that lancet and canula act as a trocar, and canula to enter the vein. The point and sides of lancet to be very sharp, but the sides becoming rounded as it enters the canula and the centre rapidly thickening back from the point, so that a section where it emerges from the tube would be of this shape

The shaft of the lancet terminating in ring E., by which it can be entirely drawn from the canula for cleansing or sharpening.

C. An upright tube connected with the canula into which may be screwed the tube I., of figure 1, and having a stopcock F.

D. Elastic straps to be passed around the limb, and fastened by buckles H. to hold the canula in place when it has entered the vein.

MODE OF OPERATING.

Place a bandage or elastic band around the limb, above the point where the lancet is to be inserted. When the vein is distended, thrust the lancet and canula into it by gentle pressure, passing it in so far that the canula is well engaged in the vein. Now draw the lancet back by ring E., until the point has passed the upright tube C. Upon turning the stopcock F., blood should well out of tube if the canula is properly fixed in the vein. If it is, secure it in place by buckling the straps D. around the arm, and tie the tapes attached to ring E. around the arm, to prevent the shaft of the lancet from being entirely drawn out of the canula.

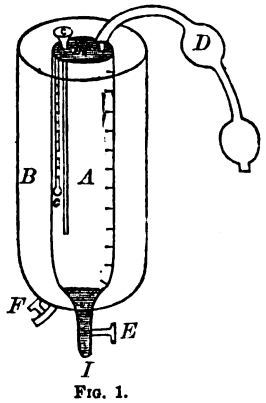


Fig. 1.

The tube I., of the graduated glass, may now be screwed into the tube C., and the stopcock E. being turned on, while stopcock F. of figure 2 is turned off, any air above stopcock F. will escape to the top of the liquid in jar A. The air in tube C., below stopcock F., will have been forced out previously by the blood welling up into the tube from the vein. There must not be sufficient delay in turning the liquid from jar A. into the vein, to allow the blood in the canula to coagulate, or clots would be carried into the circulation. By means of the handball apparatus, air may be forced into the jar A. above the liquid; and any desirable degree of pressure brought to bear upon it. The jar being graduated, the quantity of liquid thrown into the vein is easily determined; and, with a watch in hand, the pressure may be so regulated that a given quantity may be thrown in, in a given time. Through the funnel C., more liquid may be thrown in at any time; and when the liquid in jar A. has gone below the tube of the funnel, the air will escape from it, the pressure be removed from the liquid, and all danger of forcing air into the vein obviated.

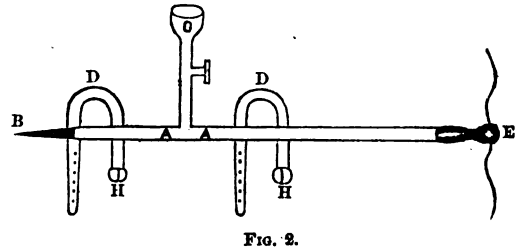


Fig. 2.

While in use, the apparatus will require to be supported with one hand, while the handball is pressed from time to time with the other; or, a stand might be made to support the jar, the legs of which could straddle the limb. By attaching the other end of the handball apparatus to the tube H., the air in jar A. might be exhausted; and the apparatus used for drawing the blood from a vein, and the blood immediately returned to the vein of another person by reversing the action before it had time to coagulate, and without defibrinating it. For this purpose, it would probably be best to have two lancets with canulas, such as described in figure 2.

Camp Supply, Indian Territory, January 18th, 1869.

Medical Items and News.

ACUPRESSURE AT THE NEW YORK HOSPITAL.—Since the first of December acupressure has been employed at this hospital, in two amputations at the shoulder-joint, in two of the thigh, and in one at the knee-joint, with complete prevention of hemorrhage in every case. All the cases but one, which died of pyæmia, either have recovered or are in a fair way to do so.

COLLEGE OF PHYSICIANS AND SURGEONS.—The Commencement of this College occurs on Monday, the 1st inst. Joseph Choate, Esq., delivers the address. The Alumni meeting will be held on the day following; the address by Dr. Joseph Mauran, of Providence, R. I. Dr. James L. Banks has been elected Trustee, in place of Dr. Isaac Wood, deceased.

ALUMNI ASSOCIATION, MEDICAL DEPARTMENT NEW YORK UNIVERSITY.—The annual meeting was held in the small chapel of the University, Tuesday evening, Feb. 23, 1869. Dr. S. S. Purple was re-elected President of the Association, and H. Mortimer Brush, Secretary. The annual address was delivered by Dr. H. S. Hewitt, of class of 1847. His theme was, The necessity of a more liberal culture for the Physician, in order that medicine may take its proper rank among the sciences.

BELLEVUE HOSPITAL MEDICAL COLLEGE.—The anniversary meeting of the O. Æ. Society was held in the College Lecture-room on the 26th ult. Prof. L. A. Sayre delivered the address. The Commencement takes place Tuesday evening, 2d inst., at the Academy of Music; Rev. Alexander A. Thompson, orator.

DEMISE OF A BRILLIANT OPERATOR.—Dr. Palamedessi, Professor of Surgery at the Hospital of Santa Maria Nuova, died at Florence, Nov. 27, 1868, in the 50th year of his age. He was one of the most brilliant operators of Italy.

BARON JAMES DE ROTHSCHILD.—This great financier paid Dupuytren 100,000 francs for the treatment of a fractured thigh. This fee was left in Rothschild's bank, where it multiplied enormously. To the 5,000,000 francs which Dupuytren left, the Baron's 100,000 francs contributed not a trifle. Dupuytren was well aware of the fact, and was very much chagrined when he learned that Astley Cooper had left a fortune of 11,000-000 francs, the whole of it acquired by practice.

POISONOUS SOCKS.—The *Lancet* states that the dye used in some of the gorgeous red socks displayed in the windows of metropolitan hosiers, exercises a very deleterious influence upon the skins of the wearers, producing irritation and eruption, and finally actual sores.

THE STAINS OF IODINE.—By adding a few drops of liquid carbolic acid to the iodine tincture, the latter will not stain. According to Dr. Bogs, of the Indian Service, carbolic acid also renders the efficacy of tincture of iodine more certain. He recommends the following formula, whenever injections of the latter are indicated: Alcoholic tincture of iodine, 45 drops; pure liquid carbolic acid, six drops; glycerine, one ounce; distilled water, five ounces. In blennorrhœa and leucorrhœa, this mixture is said to be superior to tar-water.

ORGANIC SYNTHESIS.—The last number of Liebig's *Annalen* announces the fact, that the direct transformation of the acids of the fatty series into corresponding alcohols has been effected by *Linnemann*. It was accomplished by the action of sodium-amalgam on anhydrous acid. This important discovery supplies the missing link required to pass step by step up the ladder from the simplest alcohol (wood-spirit), up to the highest, wax alcohol.—*British Med. Journal.*

POISONING BY NICOTINE.—It is asserted by M. Tardieu, that animals poisoned by nicotine always fall down on the right side.

NEW CEMENT FOR ENVELOPES.—The thick glutinous juice which is found in great quantities in the interior folds of the leaves of the New Zealand flax (*Phormium tenax*), which is, in fact, hemp in natural solution, is an excellent cement. While liquid it can be used as common gum; but when dry, no ordinary solvent has any action upon it.

NEW INFLAMMABLE SUBSTANCE.—Mr. Boettger has formed a mixture, which inflames by friction, of 8 parts of teroxide of thallium and 1 part of protosulphide of antimony.

PIGS THE BEST PRODUCERS OF PEPSIN.—The strongest pepsin is obtained from young, healthy pigs, which are kept hungry and then excited by savory food; while the influence of it is strong upon them, and the secretions are pouring out in expectation of the meal, the animals are pithed.

Pepsin, like diastase, is rendered inert by a temperature of from 120° to 130° F; and, therefore, very hot drinks are hurtful.—*Chemical News.*

BEVERAGES USED BY THE HUMAN RACE.—Not less than 500,000,000 of the human race make use of an infusion of tea; more than 100,000,000 drink coffee; about 50,-000,000 cocoa; and not less than 10,000,000 of the inhabitants of Peru, Paraguay, and the Brazils, use an infusion of maté or guarana. In England alone there are over 100,000,000 lbs. of tea consumed annually, and about half as much of coffee. About 100,000,000 lbs. of tea are consumed in this country.

CRIME-SEED.—There are in London fully 100,000 children destitute of proper parental care.

POWERFUL VOICES.—Sir Duncan Gibb, President of the London Anthropological Society, claims for the Germans the most powerful voices in Europe. The voices of the Tartars are, however, more stentorian, while those of the Chinese and Japanese are of feeble compass and low power.

HOSPITAL AT FORT SMITH, ARKANSAS.—The Secretary of War has authorized the erection of an hospital at Fort Smith, Arkansas.

CONSUMPTION OF CONFECTIONERY IN FRANCE.—According to the *Moniteur*, the annual manufacture of bonbons in France amounts to $6,000,000, of which only ten per cent. is exported. England, besides, exports to France $1,000,000 worth of cheap sweets.

A FEMININE PARR.—A woman recently died in Puebla, aged 150 years.

ABOLITION OF TITLES IN METROPOLITAN HEALTH BOARD.—The titles of Registrar of Vital Statistics and Deputy Registrar of Vital Statistics have been abolished.

Dr. Elisha Harris has been elected Sanitary Superintendent *vice* Dr. E. B. Dalton, resigned. Dr. Moreau Morris has been elected Assistant Sanitary Superintendent for New York city, and Dr. R. Cresson Stiles, Assistant Superintendent for Brooklyn.

The Assistant Inspectors chosen are Drs. E. D. Hudson, Jr., S. D. Wadsworth, C. P. Russell, F. A. Thomas, J. T. Nagle, Lloyd Stevnes, W. S. Westcott, F. J. Randall, L. Applegate, and Aug. Viele.

LOCAL USE OF ARSENIC.—Some of the Italian physicians are using arsenic locally in certain structural diseases, it is asserted, with great benefit. Dr. Tassi, for instance, in lupus exedens, syphilitic and scrofulous sores, uses a weak solution of arsenic to the diseased surface. D'Ormea, of Bologna, uses the same remedy in epithelioma.

Original Communications.

CASE OF MOLLITIES OSSIUM.

By JOSEPH JONES, M.D.,

PROFESSOR OF CHEMISTRY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF LOUISIANA, NEW ORLEANS, LA.; ONE OF THE VISITING PHYSICIANS OF CHARITY HOSPITAL.

Miss Raney Drucilla Boyd.—Nashville, Tennessee, October 1st, 1868, was called by Mrs. Boyd, to attend her daughter, Miss R. Drucilla Boyd, age 18, of humble parentage, who had always lived in great poverty. At the time, the patient, Miss Boyd, together with her father, mother, and younger sister, occupied a small room about 10 feet square, in a wooden building erected by the Government during the war, at the foot of Fort Naglie; the entire family is supported chiefly by alms, the mother's attention being taken up principally with the care of her sick daughter, and the father being aged, feeble, and afflicted with an eruption upon the skin and an indolent ulcer upon the back.

The father, mother, and Miss Drucilla, all present pale cadaverous faces, resembling those who have long been subjected to the action of malaria.

Miss Drucilla was born in Bedford county, Tennessee, three miles from Shelbyville, in a healthy locality, and her mother states that she was a healthy child up to the age of five years, when they moved to Southern Illinois, and settled on an island in the river, opposite Paducah, Kentucky.

The island lay in Madison county, Illinois, between the Tennessee and Ohio rivers, was low, and subject to overflow. The island was overflowed the year after the removal of the family, and at this time the lower part of the house was under water, and the house occupied by the family, as well as the surrounding grounds, continued damp during a considerable portion of the spring and summer—the freshet occurred in the month of May. Shortly after her removal to this low, malarious situation, Miss Drucilla, who up to this time was an active, healthy child, was seized with the *ague*, and suffered with it for *eighteen months*.

The softening of the bones commenced just after the freshet, and whilst she was suffering severely with malarial fever, and whilst the house and surrounding lands were damp and covered with the river deposit. The bones of the leg first became painful; poultices appeared to relieve the suffering temporarily. Then the jaws were attacked, became painful, and both the upper and lower jaw upon the left side became carious, and have continued occasionally to discharge pus and small fragments of bone up to the present time. The diseased surface sometimes heals up, but breaks out again.

About three years ago, the left arm began to lose its bone, and has apparently lost all the earthy matter of the humerus for the space of some five inches. The mother states that this loss of the substance of the bone was attended with great pain; we felt somewhat doubtful about this statement, as at the present time the patient is cheerful and apparently without pain.

At the present time the middle portions of the humerus of the left arm have apparently disappeared, or been converted into a flexible cartilaginous mass, only about two inches of hard bone remaining at the upper humeral and lower ulnar articulations. The arm can be bent at right angles to the natural course of the humerus, and it can be twisted around its centre, and it feels in this portion like a mass of flesh. The forearm and hand of left side present a natural appearance. The right humerus of right arm feels rough and enlarged, and is painful to the touch. Ulna of right arm apparently of natural length, but anterior portion projecting outwards, and the hand thrown inwards. Radius apparently destroyed, or converted into soft, flexible material, throughout a considerable portion of its extent.

Right thigh and leg much less affected than the left. Knee-joint of right leg much swollen, with distinct veins; ankle-joint much deformed, the fibula projecting beyond the ankle, and the lower portion of the tibia converted into soft, flexible material, shortened and diminished in size. The marks of several ulcers are visible upon the right leg.

Left leg—Tibia and fibula divided or absorbed in the region of the upper third, and large masses of a hard nature, like the callus of the fractured bones in healthy individuals, have been thrown out around the extremities of the bones. Her mother states that this bone was fractured at night, whilst the patient was lying in bed, and that the fracture was attended with an audible snap. If the statement was correct, the fracture was occasioned by the action of the muscles of the thigh, after the weakening and absorption of a large portion of the shaft of the bone. The correctness of the statement is sustained by the existence of callus around the extremities of the bones.

Left foot and ankle in place and of good shape.

Patient suffers with continued pain on left side of the head; sight in left eye much impaired, and eye-balls very prominent, as if the orbits had been thickened and the soft parts pushed forward. At times the pain in the head is said to be quite intense.

Complexion sallow, with leaden, jaundiced hue, and anæmic; the complexion of this patient resembles in all respects that of one who has been long subjected to the action of the malarial poison, and whose blood, liver, and spleen have been thoroughly affected by its action.

The effect of the mollities ossium has been to arrest the growth of the patient, for although eighteen years of age, she is only three feet nine inches in length, and weighs not more than a child of four years of age. In exhibiting the case before the medical class, I took Miss Drucilla out of the carriage and carried her up-stairs into the amphitheatre in my arms, with as much ease as if she had been a small child.

Intellect clear, and spirits good and cheerful; talks most intelligently and cheerfully, and although confined entirely to the bed, and unable to do anything for herself, is a great comfort to her mother, and a general favorite with all; and her mother told me, that in their great poverty and distress, and in the numerous straits which befell them, she was her main-stay for advice.

The softening of the bones does not appear to have had any connection with syphilis, as the patient was perfectly healthy up to the time of the appearance of the malarial fever, at the age of five, and her younger sister, born after the family left the unhealthy island on the Ohio river, is a fine healthy girl of ten years of age, with full well-formed limbs, and rosy, healthy countenance.

The ill-health of the father appears to be due to bad diet, and the irregular habits and exposure incident to great poverty.

The menstrual function had never been performed by this patient.

I conceived the indications in this case to be:—

1st. The enrichment of the blood with those salts which were wanting, and which would more especially supply the elements for the bones.

2d. The improvement of the general condition by nutritious diet, and by the action of alteratives.

3d. The regulation of the bowels, which had been habitually constipated, or costive.

4th. The restoration, or rather the establishment of the function of menstruation.

We sought to accomplish these results by the administration of fifteen grains of a mixture of equal parts of the phosphates of iron and lime, in a cup of rich, fresh milk, three times a day; by an alterative plan of treatment, consisting of iodide of iron and iodide of potassium (℞ Syrup of the iodide of iron, f ℥ j.; iodide of potassium ʒ ij.; syrup of ginger, f ℥ viij.; mix; teaspoonful in wineglassful of water, three times a day); and by the regulation of the bowels and uterus by the pills of aloes, rhubarb and myrrh of the United States Pharmacopœia, and the administration in liberal quantities of digestible and nutritious diet.

Under this treatment the menstrual function was established (in the language of her mother, "she became a woman"), the general health improved, and the heart symptoms were alleviated.

In the latter part of December, my residence was destroyed by fire, and having to transfer my family to Georgia, and amidst a pressure of cares and labors, I lost sight of this case; previous to this, the mother was in the habit of calling at my office every day for advice and assistance, and my visits also were at regular intervals.

I was subsequently informed by her mother, that Miss Drucilla died after a brief illness, on the 1st of February, 1869. I could gather nothing more, than that the illness was brief, and that both the stomach and heart were deranged, about the time that the menses should have appeared.

The connection of this case in its origin with a severe and prolonged attack of malarial fever, during exposure for months to a damp unhealthy malarious atmosphere, is interesting and important.

I have elsewhere shown, that the malarial poison not only destroys the blood-corpuscles more rapidly than any other febrile poison, but also *diminishes* the *phosphates* of the *blood*. (Observations on some of the Physical, Physiological and Pathological Phenomena of Malarial Fever. *Transactions of the American Medical Association*, 1859.)

Rapid destruction of the bones, as well as of the integuments and muscles, has been sometimes witnessed as one of the results of the action of malaria upon the human system, and I have elsewhere recorded such cases (*Trans.* A. M. A. 1859); and at the present time, I have in my wards in the Charity Hospital, a case of chronic malarial poisoning, in which one leg has been destroyed by extensive ulceration, and the other leg is threatened by large ulcers. A careful examination of the histories of these cases, demonstrated that the destruction of the tissues could be referred, neither to the action of mercury, nor to the effect of acquired or hereditary syphilis.

It is possible, that in certain stages of malarial fever, and in certain states of the human system, acids, as the phosphoric and lactic, capable of acting upon the inorganic constituents (or mineral elements of the bones, phosphate and carbonate of lime, and phosphate of magnesia), may accumulate in the blood and structures, and cause a solution and absorption of the earthy matters. By numerous analyses of the urine in malarial fever, I have shown that, during the chill, and at the very commencement of the hot stage, phosphoric acid disappears almost entirely from the urine, whilst the organic acids and sulphuric acid are increased; as the hot stage progresses, and the febrile action and the heat commence to decline, there is an augmentation of the phosphoric acid; the uric acid is either increased, or remains at the normal standard, during the chill, disappears almost entirely during the fever, and then increases rapidly, and rises to a high figure after the subsidence of the febrile excitement, and often continues for days, two, three, and even six times more abundant than in the normal state. The salts of lime contained in the urine also undergo marked variations in quantity during the different stages of malarial fever, diminishing during the chill and first stages of the fever, and increasing as the febrile excitement declines. In the first stages of the paroxysm, the phosphoric acid appears to be, to a considerable extent, free and uncombined, either with the alkalies, soda and potassa, or lime; after the continuance of those changes which result in the increased formation of phosphoric acid in the nervous and muscular structures, the insoluble phosphates of the structures appear to be dissolved, and hence the accumulation of the salts of lime in the urine. On the other hand, the chloride of sodium, a highly soluble salt, increases in the earlier stages, and diminishes in the urine during the intermission or remission.

The pale, sallow, anæmic hue of this patient, together with the rapid, feeble pulse, and periodic febrile excitement, indicated profound alterations in the composition of the blood, and derangement of the nutrition of the organs and tissues.

It is not unreasonable to refer the origin of the disease in this case, to the derangements of the blood and nutritive acts, by the presence and continued action of a specific poison; especially as this disease is known to originate most frequently amongst the ill-conditioned and ill-fed inhabitants of large manufacturing towns, and in females whose menstrual function had been deranged for long periods of time, or whose forces had been depressed by the demands made upon the nutritive elements by repeated pregnancies.

In a word, we are disposed to refer the origin of the disease in this case, to constitutional derangements, rather than to a strictly local disease of the bones.

This conclusion is further sustained by the fact that a large proportion, if not all the cases of mollities ossium heretofore reported, exhibited marks of constitutional derangements, fever, wasting, and abnormal condition of the urinary secretion, preceding and accompanying the local disease in the bones.

We cannot regard the osseous tissue solely from a chemical point of view; neither is it correct to regard it as a simple, uncomplicated texture. In addition to the phosphates and carbonates of lime and magnesia, which might be regarded as comparatively devoid of vitality, bone presents a complicated structure, into which the most highly vitalized and most complex tissues, as vessels and nerves, enter. The numerous cavities and canals which penetrate the fresh bones are not empty, but contain a true nutritive plasma, complex in its constitution, derived primarily from the blood circulating through the osseous tissue, and obtaining its physical and chemical elements directly from that fluid, and in common with all the other fluids of the body, subject to physical laws of endosmosis and absorption, and to chemical changes. The investigations of Virchow, Donders, and Hope have even rendered it probable that the bone-corpuscles and their prolongations are lined by a membrane, and cannot therefore be viewed as simple excavations in the compact structures.

It is not unreasonable, therefore, to refer certain structural alterations of the bones to derangements of the blood, from which the nutritive fluids and plasma of the cellular spaces are derived. While an excess of

earthy salts in the blood, conjoined with an increased alkalinity, may tend to the deposition of phosphates; on the other hand, an increase of acid in the blood, whether received from the alimentary canal, by absorption, or from the mal-assimilation of the elements of the nutritive fluids, or from some arrest or perversion in the process of secretion, would tend to the solution of the mineral constituents of the osseous system.

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MEDICINE AND SURGERY IN ASIA MINOR.

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I will first glance briefly at the diseases of the country as I found them in a wide range of practice during the last nine years, and next give some account of the medical practitioners of the country. My own experience has been about equally divided between medicine and surgery, and I will first give some of the results of my observations in the former. My location has been at Livas, a city of about 35,000 to 40,000, a little to the northeast of the centre of Asia Minor. It is on the river anciently called Kalys, by the crossing of which Crœsus sealed his fate and is supposed to be the ancient Sebastia. My practice, however, has extended to all the principal cities of the interior, one of which, Kaisariyah, or Cesarea (the ancient Mazaca), where I have spent much time, is about one hundred miles to the southwest of Livas, and contains, with its suburbs, a population of 150,000.

The region of my practice embraces quite a variety of climate, owing to the difference in elevation of the different cities, and this makes a marked difference in the physical appearance of their inhabitants. I can generally tell from what town a man comes by his features. Livas itself is about 4,000 feet above the sea, and its climate is cool and salubrious, and this is true of large belts of table-land stretching through the interior of Asia Minor, which are productive and thickly populated. Most of the principal cities, however, are in lower and hotter regions. Those on the coast of the Black Sea are generally noted for the insalubrity of their climate.

Miasmatic fevers and diseases prevail throughout all this region, but in much more severe and dangerous forms in the lower and hotter. Severe congestive fevers are found on the sea-coast and low valleys, from July till September. The marshes are poorly drained, and I suppose these fevers have prevailed from time immemorial. In all miasmatic regions also (that is where miasm is ripe), scrofulous diseases are exceedingly prevalent.

Of continued fevers, typhus and relaxing are everywhere found. The former may be said to be endemic, and both frequently prevail as epidemics. I should say 70 per cent. of cases of the former and 90 of the latter recover, whether with or without medical care. Gastric and hepatic derangements are quite marked in the latter, requiring counter-irritants and saline laxatives. I have tried quinine to prevent relapse after the first crisis has passed, but not sufficiently yet to venture an opinion as to whether it is of service. Epidemics of measles are more violent and fatal than they have been wont to be in this country. Principal fatal complications have been pneumonia and dysentery. Variola is far more common than it is here, because vaccination is much less generally and efficiently practised than here. I have seen several cases of syphilis there propagated by vaccine matter. It is only within the last twenty years that vaccination has been practised at all in the interior, and all the adults are pretty much marked with small-pox, multitudes also being blind or deaf from the same cause.

The other epidemic diseases do not differ essentially from what we find them here. I have never seen or heard of diphtheria. Plague, the ancient ravages of which in those regions are so graphically described by Gibbon, the historian, has been effectually banished by quarantine. Cholera seemed to be shut off by the same course in the epidemic of 1866 and 1867 from the interior, although it raged so destructively at Constantinople and other seaport towns where quarantine was quite efficiently established, and south of the Taurus Mountains, the roads over which were barred by quarantine stations. Two previous epidemics also of this disease, which visited the Levant, failed to penetrate into the interior cities and villages of that region. The following prescriptions were given in 1866 with good success in Constantinople: Tincts. of rhubarb, opium and camphor, equal parts, a teaspoonful to be taken after each evacuation in the precursory diarrhœa. Where vomiting began, it was to be substituted by a teaspoonful of the following after each evacuation of the stomach: Tincts. of opium, cardamom, ginger and pepper, equal parts.

Inflammatory diseases are much the same as found here, and are most successfully managed by a discriminating use of the old-fashioned antiphlogistic treatment.

Of chronic diseases, cutaneous disorders are much more prevalent than we meet with them here, and we see every variety described in medical books, and some which have never been described. I often see what is called leprosy by the native physicians. It begins with papulous, shining elevations of the skin and mucous membrane of the fauces and neighboring parts, and generally in the course of two or three years destroys life, going on to loathsome ulcerations, glandular swellings, and general cachexia. It is not contagious, but seems to be hereditary.

Another cutaneous disease prevalent in Asia Minor, and peculiar, I think, to that country, is what is popularly termed there the Aleppo button, or more commonly called by the natives, year sore, with reference to its duration. It begins with a papulous redness and elevation of the skin, which goes on extending and increasing in inflammation until it eventuates in ulceration. The resulting ulcer is irregular in shape, has a hard base, and shows no disposition to heal under a year, when it spontaneously cicatrizes. It is about as large generally as an average coat-button, whence its name. Its cause seems to be atmospheric and not from the water, as some have supposed, but have found on experiment that they were in error. It may occur anywhere on the body. It sometimes leaves a bad cicatrix on the face, and sometimes attacks and destroys an eye.

Diseases of the alimentary canal in general are much more common than here. Chronic gastritis, and all forms of dyspepsia, are the most numerous of the ailments for which we are called to prescribe. One cause is the improper diet of the people, who live much upon food fried in butter or other fat, and swimming in the same, and upon crude, coarse vegetables. During their religious fasts, which occupy 160 days of the year with nominal Christians, and one month with the Mahomedans, their diet is very irregular and unwholesome. Among the former, excess in wine and other alcoholic drinks is common; these are manufactured from the grape by every family for its own use. The Mahomedans are made by their religion total abstinence men.

Torminous diseases are very prevalent, and a favorite and effectual remedy is santonine. Tape-worm is much oftener found than here, and turpentine generally expels it. Some cases have been cured, when all other remedies have failed, by quantities of pounded pumpkin or squash seeds.

As to respiratory diseases, I have noticed this fact, that all excessive tobacco-smokers, after they pass the age of forty-five, have chronic bronchitis, with more or less of pulmonary emphysema, and the disease is very common, as everybody smokes, and many, of course, to excess. The women generally do not use tobacco. They are not there, however, considered anybody. In epidemics of hooping-cough I have found bromide of ammonium a very valuable remedy, mitigating the paroxysms and quieting the nervous system.

Diseases of the brain and nervous system in general are not so common as in this country. Hydrocephalus is quite rare. Epilepsy, however, is common. Frequently I have traced the cause to excessive masturbation, which is a universal habit of the youth of the country. I have relieved some cases by bromide of potassium, and some by arseniate of potash. I relieved also a severe case of chorea by the former, and some cases of spasm of the glottis, or laryngismus stridulus.

Hysteria is almost unknown among the hardy women of many of the provincial towns and villages. With regard to convulsions and most forms of spasmodic diseases, and insanity, the Orientals in general suppose them to be not forms of disease, but possessions of evil spirits. In my next I will speak of the principal items of interest I have found in surgical practice.

THE TREATMENT OF NEURALGIA BY ELECTRIZATION.

BY

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No. 1.

UNDER the general term neuralgia, which, fifty years ago, was but little known, either to the profession or the laity, is now included one of the most frequent and distressing symptoms of the chronic diseases of our time.

The term neuralgia (neuron and algas—pain of the nerve) gives no clue whatever to the nature of the affection.

Strictly speaking, all pain, in any disease, is nerve pain, and therefore the term neuralgia might be applied to every phase of disease, acute or chronic, that is attended with unpleasant sensations. This term, however, as ordinarily employed, designates an affection of the nervous system, which is attended with pain in the course of some of the principal sensory nerves.

The pain of most acute and many chronic diseases is diffused through the various tissues, either locally as in arthritis, abscess or other swelling, or generally as in constitutional rheumatism and other febrile affections.

When, in any disease, the pain follows the course of any particular or prominent nerve-branch, it receives the name neuralgia. The pains of the affection are usually quite sudden in their onset, and are of a lacerating, stabbing, darting, or burning character. They are more or less intermittent, and are not ordinarily accompanied by any constitutional febrile disturbance.

Neuralgia has usually been classified according to the locality of the pain, and corresponding special names are given to it. Thus we have facial, brachial, intercostal, and abdominal neuralgia; gastralgia, sciatica, &c. This method of classification, though convenient, and to a certain extent indispensable, is yet, to the last degree, unphilosophical and unscientific. It grew up in the times of professional ignorance, and therefore gives no idea of the special nature of the affection, and can be no guide in the prognosis or therapeutics. The method of classification of the neuralgias that we adopt is *based on the local or general condition in which they take their origin.*

It seems to us at once logical, scientific, and readily suggestive, both of the prognosis and the therapeutics. All conceivable forms and phases of this affection may be included under one or the other of these four grand divisions.

1st. *Constitutional Neuralgias.*—Those which arise from constitutional conditions: anæmia, neurasthenia (nervous exhaustion), poisoning by syphilis, mercury, rheumatism, gout.

2d. *Central Neuralgias.*—Those which arise from disease of the central nervous system: inflammation, congestion, anæmia, exhaustion of the brain and spinal cord, also meningitis, tumors, pressure of foreign substances, &c.

3d. *Peripheric Neuralgias.*—Those which arise from local diseases of, injury to, or pressure on the nerve: neuritis, neuroma, aneurisms, wounds, bruises, &c.

4th. *Reflex Neuralgias.*—Those which arise from reflex action. This class embraces a large number of neuralgias that attack all portions of the body. Complicated cases occur that may properly belong to two or more of these divisions. A patient afflicted with anæmia or neurasthenia may suffer from neuralgia that may be aggravated by neuritis, or by a wound or bruise. A curable case of neuralgia of malarial origin, may be rendered incurable by the supervention of organic disease of the brain or spinal cord. Illustrations of these varied forms are sufficiently familiar to the practitioner. The prognosis of the affection manifestly depends on its causation. It is impossible to give an intelligent opinion in any given case, without first ascertaining the predominant condition on which the symptoms depend. The principles on which neuralgia is to be treated, are simply these two: *first, to relieve the pain*, and *secondly, to remove the cause.*

The relief of pain is accorded the preference, because it is the most urgent, on account of its terrible severity. The ordinary methods of fulfilling these two indications we do not propose to discuss, but shall confine ourselves to the treatment by electricity, in the form of general, partial, and localized electrization with the faradaic and galvanic currents.

The treatment of neuralgia by the electric currents has occupied the attention of the more advanced neurologists and electricians for a number of years. Meyer * devotes a small portion of his monograph to this subject.

The current from the voltaic pile was recommended for neuralgia by Grapengressen at the beginning of the present century. The galvanic current from a number of elements was employed by the late Prof. Remak, and by him this method of treatment was introduced to the profession of our time.

Rosenthal † devotes a very interesting chapter to this theme, and relates a number of suggestive cases.

* Die Electricität in ihrer Anwendung auf Practische Medicin. Berlin, 1861

† Die Elektrotherapie, ihre Begründung und Anwendung in der Medicin. Wien, 1865.

Althaus* speaks of neuralgia in both of his works on electro-therapeutics,† and records very satisfactory results.

Benedict,‡ whose recently published treatise on electro-therapeutics is incomparably superior to any other work on this subject, in any language, enters into the consideration of the treatment of neuralgia with elaborate and scientific detail, and reports a large variety of cases.

All of these writers have achieved their results by the use of *localized* electrization merely, since this is the method which is chiefly employed in Europe.

For reasons that will be presented further on, which will, we think, commend themselves to the judgment, and accord with experience, *general electrization* is oftentimes far more efficacious than localized, especially in those cases of neuralgia that depend on constitutional conditions.

Electrization, wisely administered, fulfils, to a greater or less degree, both of the conditions that are required in the treatment of neuralgia. It oftentimes relieves pain and cures the cause of it. When applied all over the person, from the head to the feet, it acts as a powerful constitutional tonic, and *thus* helps to remove very frequent and persistent causes of neuralgia.

In order that treatment by electricity may be successful, there are needed apparatus for both currents, the galvanic and the faradaic. For the faradaic current we use the apparatus of Kidder. For the galvanic we now employ to a considerable extent, the portable air-tight galvanic apparatus § of the Messrs. Chester. The general rules that should guide us in the treatment of neuralgia by electricity are these—

1st. All forms, constitutionals, central, peripheric and reflex, that are dependent on, or associated with general debility, should be treated by general electrization, and *usually* with the faradaic current.

2d. Acute and sub-acute neuralgias, of a merely local character, are *usually* best treated by a very mild galvanic current, *steadily* applied over the painful nerves.

These forms of neuralgia, however, sometimes yield to the faradaic current.

REMOVAL OF PORTIONS OF TINES OF A FORK FROM MEATUS AUDITORIUS, AFTER FIVE YEARS' LODGMENT.

By WENDELL A. ANDERSON, M.D.,

LA CROSSE, WISCONSIN.

On the 14th of May, 1868, a man came into my office and requested me to give him something to stop a discharge from his ear. Upon questioning him, to ascertain the cause of his trouble, the following history was given: In the month of March, 1863, he was a member of the 1st Regt. Colorado Cavalry, and while on duty in the Provost Guard at Denver City was obliged to assist in arresting some men in an eating saloon. During the struggle he received a blow upon the left ear, and was informed by his comrades that one of the men struck him with a steel fork; alarmed at the hemorrhage, he applied to a physician in the city for treatment, as the regimental surgeon was some distance off. The hemorrhage was soon checked, and as nothing could be seen in the ear, he was told that the pain was the result of several pricks made by the fork, and would subside in a short time. He continued to suffer with the pain, being unable to lie on that side, but did duty for a month before applying to the surgeon of his regiment. An examination of the ear was made, but nothing discovered, and he was furnished with something to drop in the ear to ease the pain, which subsided after a while. He was quite deaf, but the pain was felt only when the head was shaken or struck. He continued to serve with the regiment, not missing a day's duty, until October, 1864, when he was discharged by reason of expiration of term of service. In March, 1867, having passed the winter in the Wisconsin pineries, he became entirely deaf in the left ear, and suffered severely with pain, which was soon followed by an offensive discharge; and at one time while cleansing the ear, he removed a piece of iron resembling a portion of a common steel fork tine. The discharge was quite free after this, but the pain was easier, and he continued his occupation in the woods until the day I saw him, one year later.

Upon examination of the ear I found the meatus, just within the concha, filled with what appeared to be a polypus, and while cleansing the part for a more careful examination, a small hard point was discovered in the fossa of the anti-helix which could not be moved by water. Bearing in mind the history, an attempt was made to ascertain the nature of this substance, and a fork tine three-fourths of an inch in length was removed. The direction of the tine was from above downwards, inwards, and a little forward. The point undoubtedly projected into the meatus, as there was slight hemorrhage from the auditory canal. Carefully cleansing the ear, he was requested to call again the following day. He did not call at the time appointed, and the case had passed from my mind, when, on the 4th of September, he visited me, stating that he thought he could care for himself after the foreign body had been removed; but as the discharge continued and the hearing was not improved, he wished more assistance. The ear being cleansed, I observed that the "polypoid mass" had disappeared, but within the meatus about three-fourths of an inch there were numerous vegetations nearly filling the canal, and still deeper was a dark mass, at first mistaken for an accumulation of cerumen. When I told him that it would take a long time and careful syringing of the ear to remove the substance, he would not believe that such a mass could be there. To convince him, the mass was touched lightly, but the sound to him was that of two pieces of iron striking together. Making a still closer examination, I decided that there was another fork tine lodged there, lying in a horizontal direction across the canal. Evidently warm water would not accomplish what was desired, and only by repeated efforts was I able to seize the piece by the centre, press it forward, and bring one end into sight in the canal. It was then easily removed. There was considerable hemorrhage, and the pain was such I postponed further examination till the following day. The piece of iron removed was seven-eighths of an inch in length. On the following day, when the ear was examined, precisely the same condition existed, apparently, as on the preceding day. Not believing it possible that there could be any more fork tines, I "sounded" the piece, which the patient affirmed conveyed the same impression to him, viz., of two pieces of iron. In the same manner as on the preceding day, with less difficulty, but more suffering for the patient, another tine was removed, this one measuring one inch and five-sixteenths in length. The tines were all much corroded, and evidently had remained in the canal for a long time. Repeated examinations of the ear have been made, but no more foreign bodies

* Medical Electricity. London, 1859.

† On the Value of Galvanism in the Treatment of Paralysis, Neuralgia, &c. London, 1866.

‡ Elektrotherapie. Wien, 1868.

§ A full description of the apparatus, with the history of its construction, was published by us in the New York Medical Record, July 15, 1868.

discovered, although the patient believed I was not to be satisfied until the handle of the fork was found. Two months after the removal of the last object, the ear was not at all painful, the discharge had ceased, and the hearing distance of that ear, tried with an ordinary watch, was over three feet.

The case seemed to me unusual and interesting, on account of the nature of the injury, the retention of so much foreign substance in the auditory canal, with so little local or constitutional disturbance, for a period of over five years, during which time the man had not lost a day's work on account of pain or sickness; and finally complete restoration of hearing after the removal. I wish, therefore, to place it on record.

CASE OF HIGHLY DEVELOPED CALCULOUS DIATHESIS WITH SUPPURATIVE NEPHRITIS.

By S. A. RABORG, M.D.,

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I. K., a carpenter, aged 78, born in Ireland, died May 17, 1868.

The patient had suffered from occasional attacks of renal colic for twenty-four years; seven years ago, these became more frequent, accompanied by difficult and painful micturition, and for the last four and a half years he had been almost constantly bed-ridden.

On the 19th of last November, with the assistance of my friend, Dr. C. C. Lee, a careful examination of his bladder was for the first time made, and revealed the existence of at least three calculi; no stricture or enlargement of the prostate gland could be detected. The urine was frequently examined, and, with but little variation, it was faintly acid, of normal specific gravity, and under the microscope showed large numbers of pus-cells, crystals of uric acid, and the mixed phosphates, with occasional tubular casts of the kidney.

The latter element, together with the man's advanced age, and extreme debility, was thought to contra-indicate lithotomy—while the number of calculi (three, if not more) rendered the case unsuitable for lithotrity. The treatment was therefore confined to efforts at improving the general health and strength of the patient, to fit him, if possible, for lithotomy; and beef-tea, milk-punch, and other nutritious articles, with ferruginous tonics, were freely administered for this purpose. For a time he showed manifest improvement, but, after a couple of months, relapsed into the same condition, with a return of all the renal symptoms, and in this state lingered until May 17th, when he died of apparent exhaustion and mucous engorgement of the lungs, consequent upon slight bronchitis. To the last he had no symptoms of uræmic poisoning.

Autopsy, made fifteen hours after death: Body much emaciated; abdominal cavity alone examined; the mesentery and small intestines were highly congested, but no signs of peritonitis were found; the spleen, stomach, liver, and other abdominal organs, were normal, except the kidneys and bladder, which were removed together; the bladder contained five or six ounces of muco-purulent urine, and *six* urinary calculi; of these the largest was ovoid, and like a flattened sphere, perfectly symmetrical, and weighed one ounce two drachms and twenty-two grains, the remainder weighed two drachms and twelve grains together; all the stones were quite smooth and water-washed, and were of a rich chocolate-brown color. A careful analysis showed them to consist of the triple phosphate; and their color, which gave them the appearance of uric acid, was caused by a thin layer of *hematosin*, with which all those found in the bladder were surrounded.

The bladder was thickened, but not much contracted, and was a perfect specimen of chronic cystitis; the mucous membrane deeply congested and mottled, except at the "bas-fond," where an extensive ulcer completely surrounded the internal meatus. The prostate gland was not at all enlarged, but contained two or three prostatic "concretions," and a number of smaller concretions were found in the prostatic ducts. The ureters were immensely hypertrophied, and were filled with muco-pus, and their lining membranes extensively ulcerated; they each contained several small calculi arrested in their progress from the kidneys. The pelves of the kidneys were also filled with the same muco-purulent fluid, and in that of the left was a small calculus weighing fifteen grains, composed of triple phosphate, with a nucleus of uric acid. The kidneys were fatty, hypertrophied, and congested; numerous abscesses, to the walls of which calculous matter adhered, were scattered through the cortical and medullary structure. Under the microscope the tubuli were found gorged with proliferated cells; no Malpighian tufts could be recognized. The general renal condition was that of fatty degeneration and extensive suppurative nephritis; this, and the calculous saturation of all the urinary organs, proved the correctness of the prognosis, and justified the refusal of operative interference.

Original Lectures.

ON THE SULPHITES OF SODA IN THE URINE.*

By WM. B. LEWIS, M.D.,

LECTURER UPON DISEASES OF THE URINARY ORGANS IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

Great as is the value of the tests by which the poisonous metals and alkaloids are detected in the solids or fluids of the body, they must yield in importance to the two simple reactions by which the presence or absence of albumen is established. The former the physician rarely employs, the latter are every-day necessities. These much more seriously affect the aggregate of human happiness, as by them we are enabled to predict the future of men still living. The former, in the great majority of instances, explain that which is already past, or serve to bring the criminal to justice.

When, therefore, a new discovery is made which may render doubtful the accuracy of heat and nitric acid as tests for albumen, or makes their reactions more difficult to obtain, it becomes a matter of no small importance to examine and thoroughly weigh the elements of obscurity, since the welfare of many innocent persons may depend upon their being correctly understood.

In a recent issue of the Medical Record, vol. iii., p. 433, is a brief article upon the use of the sulphite of soda in the treatment of malarial neuralgia. It is therein stated that urine containing this salt will afford reactions with heat and nitric acid which are calculated to produce an impression that albumen is present, when in reality such is not the case. This announcement of a complication then unknown to the writer, seemed to call for careful inquiry; the more so, as it often happens that individuals making examinations of urine are

* Remarks made before the N. Y. Medical Journal Association, Jan. 15, 1869.

not at all acquainted with the treatment pursued in the various cases from which specimens are obtained.

In addition to these considerations, there was this, calculated to arrest the attention, that the tests relied upon as sufficient to detect the sulphites of soda, are capable of producing copious precipitates in the normal secretion, which to the eye are undistinguishable from those described in the article to which reference is made. They are the acetate of lead, and the nitrate of silver. The latter invariably throws down the chlorides, and, according to Neubauer, uric acid and the coloring and extractive matters. The acetate of lead is capable of producing precipitates with the following substances normally, or frequently, found in the urine, as well as others among the organic elements: *sulphuric acid, phosphoric acid, carbonic acid, ammonia, soda, potash, lime, chlorine, and albumen.* It is, therefore, evident that these tests are inadequate to detect such comparatively feeble salts as the sulphites, when contained in the urine. Furthermore, it appeared possible that there might be some error in the interpretation of the reactions obtained in the case reported.

Moved by these considerations, the writer proceeded to seek an answer to the following inquiries.

First. What are the reactions obtained in urine containing the sulphites of soda by the use of heat, nitric acid, acetate of lead and nitrate of silver?

Second. What is the composition of the precipitates thus obtained by the use of heat and nitric acid?

Third. Are the usual tests for albumen seriously interfered with by the presence of the sulphites in the urine; and what steps shall be taken in such cases to obtain unequivocal results?

Specimens of the hyposulphite, the sulphite, and the bisulphite of soda were obtained of a reliable chemical house, Luhme & Co., and solutions made in water and urine. The latter was carefully tested, and found to be normal, its reaction being feebly acid. The urea and chlorides were estimated quantitatively. There was no precipitate of earthy phosphates upon the application of heat. The solutions in urine were in the proportion of 20 grains to 1 fluidounce. It was proposed to try each of the above four tests in aqueous solutions of the salts before attempting the urine, in order to appreciate the variations produced by the normal contents of that fluid.

Aqueous Solution of Hyposulphite of Soda.—Clear and white. Neutral to litmus paper. *Continued boiling* produces no change. *Nitric acid*, added slowly to the cold solution, produces an opalescence, rapidly changing to a dense yellow precipitate, with evolution of the red fumes of nitrous acid. This precipitate was shown to be sulphur by the following reactions; it sublimed in yellow particles, and burned with a blue flame, while the burning material assumed a reddish brown color, and sulphurous fumes were emitted. *Acetate of lead*, when added in slight quantities, produced a white precipitate, which on agitation was dissolved. A point was reached, however, when the precipitate remained permanent. Upon now adding pure nitric acid, the acetate precipitate was immediately removed, and the sulphur shortly made its appearance. *Nitrate of Silver* also produced a white opacity which was removed upon agitation, but when a larger proportion had been added, an orange precipitate was thrown down, which shortly became brown, and almost black. Silver was not reduced by heat.

Urine containing the Hyposulphite of Soda.—Reaction, acid. No change upon *boiling*. *Nitric acid* added to the heated fluid immediately filled the tube with a dense cream-colored precipitate, entirely opaque. To a cold portion two drops of nitric acid were added. The change took place more slowly, but at the end of five minutes, by the watch, this portion also was quite opaque. The precipitate was further increased by boiling. It was then collected upon a filter, washed, and tested for sulphur, which was found to comprise the greater portion. With *acetate of lead* a precipitate was produced which was at once cleared by nitric acid, but in a moment opacity returned, showing that the precipitate produced by acetate of lead was different from that with nitric acid. *Nitrate of silver* threw down a dense cloud, which rapidly passed through orange and brown, to black, without heat.

Aqueous Solution of Sulphite of Soda.—Clear, white, decidedly alkaline to litmus paper. Continued *boiling* produced no change. *Colorless nitric acid* caused a light yellow color, with evolution of nitrous acid. Heat hastens this process, which leaves the solution transparent. *Acetate of lead* threw down a dense white cloud, removed by excess of nitric acid with slight effervescence, and the appearance of nitrous acid. The solution was then left clear and white. *Nitrate of silver* produced a light pink precipitate, which immediately subsided, leaving the fluid yellow and transparent. Upon heating, metallic silver was deposited upon the glass. This was dissolved by nitric acid, after the fluid had been poured off, with evolution of nitrous acid.

Urine containing the Sulphite of Soda.—Reaction now alkaline. *Boiling* caused the appearance of a flocculent white precipitate, closely resembling the earthy phosphates as thrown down by liquor potassæ from healthy urine. Upon standing, this deposit settled closely, occupying about ¼ of the bulk of the portion used. A few drops of *nitric acid* entirely removed it, the color deepened, and after a second boiling the urine remained clear. *Acetate of lead* caused a cloud, removed by nitric acid, which did not reappear on standing. *Nitrate of silver* produced a copious white deposit, which, upon being heated, yielded the metal. In order to test the nature of the cloud produced by heat, a fresh portion of this urine was boiled, and the sediment removed by filtration, washed and dried. It was then perfectly white, amorphous, and evidently of a saline character. A small portion placed in a glass tube, fused in the blowpipe flame without carbonization, and without *apparent* loss of volume. Upon heating this with sulphuric acid no other odor than that of the acid was emitted, and the fused material was perfectly dissolved. Another portion was dissolved in dilute hydrochloric acid, without effervescence, and heated. This solution was then proved to contain *phosphoric acid*, *calcium* (lime), and *magnesium* (magnesia), by means of the sulphate of lime, oxalate of ammonia, and phosphate of soda tests. These reactions show that the precipitate produced by heat consisted of the earthy phosphates.

Aqueous Solution of the Bisulphite of Soda.—Transparent; of a light yellow color; slightly alkaline to litmus paper. *Boiling* produced no change. *Nitric acid* in the cold fluid caused free effervescence with evolution of nitrous acid, the solution remaining transparent and becoming white. *Acetate of lead* caused a milky opacity, cleared by excess of nitric acid, with effervescence and evolution of nitrous acid. *Nitrate of silver* throws down a heavy pink precipitate, leaving the fluid transparent, but of a deeper yellow than before. Heat applied to this reduced the silver.

Urine containing Bisulphite of Soda.—Reaction feebly acid. *Heat* produced an opalescence at about 185° Fahr. This gradually took the flocculent form, and settled closely in a few minutes, occupying less than ¼ the bulk of the fluid used. The clear supernatant fluid refused to throw down any further sediment upon a second boiling. Upon now adding a few drops of nitric acid rapid disengagement of nitrous acid took place, and

the precipitate produced by heat was dissolved. There can be no doubt that it consisted of the earthy phosphates. Continued boiling left this portion of the urine nearly clear. *Acetate of lead* threw down a cloud requiring an excess of nitric acid to dissolve it, which was accompanied by free effervescence. Prolonged heating reduced the silver from the precipitate with *nitrate of silver.*

Upon comparing the results thus obtained, the following conclusions may be deduced.

I. Heat produces a precipitate in urine containing the sulphite and bisulphite, but not in that containing hyposulphite.

II. Nitric acid produces a precipitate in urine containing hyposulphite, but not in that containing sulphite or bisulphite.

III. Acetate of lead produces a white precipitate in aqueous solutions of all these salts, in urine containing them, and in normal urine; it is therefore worthless as a test.

IV. Nitrate of silver also produces precipitates under each of the above circumstances, very imperfectly distinguishable from one another; it is therefore of little value as a test.

V. The precipitate from urine containing hyposulphite of soda consists mainly of free sulphur.

VI. Those produced by heat in urine containing the alkaline sulphites, consist of the earthy phosphates.

To a portion of the pure urine about equal parts of the sulphite and hyposulphite of soda were added. Upon testing this mixed solution, as is described in the article already quoted, the following changes occurred, which were somewhat misinterpreted in that case:

Heat precipitated the earthy phosphates. Upon adding *nitric acid* to this heated portion the sulphur was so immediately thrown down that the solution of the phosphates was not apparent, if it occurred. Upon treating a cold portion of the mixture with nitric acid, "it became slowly opaque, the opacity gradually increasing." In this process, the precipitation by heat of the earthy phosphates, is probably due to no more active cause than that the alkaline sulphite has served to neutralize the free acid of the urine by which the phosphates are commonly held in solution. This acid very often is carbonic acid gas, which, being driven off by heat, the phosphates at once become apparent as a flocculent cloud. The same thing occurs in perfectly healthy urine if an excess of any alkaline salt is added. The reaction just described does not, therefore, detect a sulphite, but only an alkali. The precipitation of sulphur, by an acid, may be considered as evidence of a hyposulphite.

Acetate of lead caused, as before, a white precipitate, which was at once dissipated by nitric acid, but upon standing a moment the sulphur was thrown down, forming a dense creamy opacity.

Now, then, what is the bearing of these facts upon our usual tests for albumen? There is no doubt that if a small quantity of albumen were present it would escape observation altogether if the nitric acid were added to the heated fluid. On the other hand, it is equally certain that the great discrepancy between the volume of the deposits in the two cases would at once arrest attention. The examination could then be repeated in such a manner as to avoid all sources of error. It often occurs, that albumen, when present in very slight proportion, takes the flocculent form of coagulum, under heat. It will not do, therefore, to rely upon the different forms or appearances of coagula. It has been remarked that the precipitation of sulphur goes on somewhat slowly in *cold* specimens, allowing quite a perceptible interval between the clearing up of the lead precipitate, for instance, and the appearance of the sulphur. This fact may be successfully employed in making the test for albumen. If the portion of suspected fluid which has given a precipitate, with heat, be allowed to cool, or if it be cooled by dipping the tube into water, and then two or three drops of nitric acid be added, the precipitate will be at once dissolved if it be phosphatic; if it be albumen it will not be dissolved, but generally—that is, unless the amount is very small—the precipitate will be at once increased. If the hyposulphite be also present, the sulphur will appear in the course of half a minute, the time depending upon the amount of acid and of salt.

When great care is required, these steps may be modified as follows. The precipitate with heat, may be allowed to settle; the supernatant fluid should then be poured off and reserved. The sediment may be washed, and tested with a drop of nitric acid; if it is albuminous it will remain; any portion which may be phosphatic will be dissolved. The supernatant fluid may now be tested with nitric acid, the precipitate collected upon a filter, washed, and a portion subjected to heat in a small tube, closed at one end. If sulphur is present it will readily sublime, after undergoing a certain amount of carbonization, due to the presence of organic matter. If it is albumen it will carbonize, swell up, and emit the odor of burnt horn. Should the results so obtained be still unsatisfactory, the exhibition of sulphites must be suspended until the urine no longer affords this peculiar reaction.

No effort has been made to discover whether the sulphite becomes deoxidized to the hyposulphite in passing through the system.

Progress of Medical Science.

Treatment of Syphilis in Females. The *Lancet* publishes the following synopsis of the treatment of syphilis in the female patients of the Lock Hospital, London:

The early eruptions were treated with mercury, usually two grains of blue-pill every night, or with mercury and iodide of potash combined. The later disorders of the skin, or those appearing in exhausted patients, were generally treated with iodide of potassium, iron, and ammonia, mercury being applied by inunction if the symptoms were obstinate. The chaps on the palms were relieved by dilute ointment of red oxide of mercury, by pitch ointment, or simple cerate. Creeping ulcers of the skin were dressed with a lotion of from four to eight grains of sulphate of copper to the ounce, or with caustic solution of nitrate of silver. The affections of the genitals were variously treated. Mucous patches and erosions of the vulva were cleansed, dried, and dusted every day with powder of calomel and starch in equal weights. If the sores were fungating or spreading, they were covered at the time of the visit with dried sulphate of zinc in powder, or with caustic solution of nitrate of silver. Vaginal discharges were treated chiefly by local means. A scruple of tannin or powdered alum tied up in a pledget of cotton wool was passed at each visit through the speculum to the cervix, and left there, the patient being directed to syringe plentifully with warm water twice daily, and on the third day to pull away the cotton wool by the string left attached for that purpose; a solution of borax, of alum, or of sulphate of zinc being also used as a lotion by the patient between the visits. The uterine disorders were treated both generally and local-

ly, and acute congestion was relieved by free purgation.

The local treatment most successful in these obstinate disorders was to pass solid nitrate of silver into the cervix for half a minute to cauterise the excoriations; the best result being obtained when the patients attended regularly every week for this application, and used an astringent lotion (five grains of tartrated iron to the ounce) every day. The affections of the throat were generally effectually relieved by inhalation of steam, with iodine or creasote vapor, and a gargle of alum or perchloride of mercury.

Of the 157 women with non-syphilitic venereal disorders, 61 were married and 96 unmarried. The duration of the disease was as follows:—In 128 it was less than one year; in 8 it was between one and two years; in 6, between two and three years; in 3 between three and four years; in 3, between four and five years; in 9 the duration was unknown. They were classified as follows:—External genitals: Ulcer of the vulva, 45; ulcer at the entry to the vagina, 14—total, 59. Vaginal discharge without ulcer of the uterus, 40; congestion without ulcer, 15; ulcer or excoriation of os, 25; discharge from os only, 14. Anus: Simple ulcer of the mucous membrane, 2. Anomalies: Warts, scabies, &c., 11. In nearly all the cases where the duration of the disease had exceeded the first year there were induration and ulceration of the cervix, many dating from the patient's last confinement.

Treatment of Delirium Tremens.—W. McRea, chief officer of Victoria (*Med. Times and Gazette*), records eight hundred and ninety-eight cases of delirium tremens which occurred in the Melbourne Gaol during the past eleven years. In 1864, he began to think that the causes of this affection had been misunderstood, and that congestion and inflammation of the membranes of the brain were the true cause of this disease. Acting on this idea, he began to use leeches in the aggravated cases, applying twelve under each ear: the effect was striking and beneficial. For the last three years this practice has been pursued. An emetic is first given; after it has ceased to operate, a cold affusion is applied to the head, and, if the emetic has not acted on the bowels—which it often does—a brisk purgative of sulphate of magnesia is given. The patient is then put to bed in a quiet room, under the care of night nurses, who supply him with drink—tea or cold water—and keep a succession of wet cloths to his head during the night. In the morning, if the disease shows no signs of yielding, twenty-four leeches are at once applied. During the course of the day a cold affusion is repeated at intervals of six hours, and if the bowels are not acted on the purgative is repeated. The result of this practice is very striking, the mortality for the last three years till December, 1867, having been 1.1, or little more than 1 per cent.; and for the first seven months of the year 1868, the mortality has been *nil*.

Phosphates of the Urine Increased by Mental Exertion.—Dr. H. Byasson, in a little pamphlet entitled, "Essay on the relation which exists under physiological conditions between the Cerebral Activity and the composition of the Urine," furnishes a variety of experiments instituted upon his own person which confirm, in an exact manner, the popular belief of an increase in the phosphates of the urine as the result of mental exertion.

Dr. B. commences by detailing his method of analyzing the urine with reference to attaining the greatest amount of exactness in determining the constituents quantitatively. For twelve days he made daily examinations of his urine, taking no special precautions as to his diet. For nine days he confined himself to an exclusive diet of bread and water. Under the latter regimen he maintained his weight, and enjoyed ordinary health. He gives details of his daily occupations while performing these analyses, alternating days devoted to study, with days spent in muscular exertion, or in complete bodily and mental activity.

While indulging in a mixed diet he found no special variations in the composition of the urine, as the result of his occupation, but when confined to a simple diet of bread and water, he found that when the brain was in a state of activity, there was a more abundant production of urine, and the simultaneous appearance in the urine of urea, and the alkaline phosphates and sulphates in increased proportions.

When the muscular system was chiefly called into action there was an increase in the amount of urine, and the simultaneous apparition in the urine of urea, uric acid, and chloride of sodium. So that, provided a man should be subjected for three days to a uniform diet, and placed under nearly similar external circumstances, it would be possible to determine, by analysis alone of urine, which day had been passed in repose and which had been spent in physical or mental exertion.

The Occlusion of Arteries in their Continuity by Partial Closure with Innocuous Ligature.—At a recent meeting of the Pathological Society of New York, Dr. Benjamin Howard presented some additional specimens of the series of experiments on which he has been engaged during the past two or three years, which seem still further to establish the conclusions to which he was partially led by similar experiments reported to the Society in 1867. The common carotids of several sheep were exhibited, which had been tied, some within and some without the sheath, in 1867, with silver wire, so as to diminish the canal to about one-third its normal diameter. In every case pulsation gradually ceased. The wound healed completely by first intention. The general health was not notably disturbed. The arteries were removed in January, 1869. There was found no sign of suppuration or other morbid action having occurred. The ligatures were enwrapped in fibrine, just enough to hide them from view and produce a slightly bulbous appearance. On making longitudinal section of bulbs, the ligatures were found in situ as first placed. The occluding plugs seemed to be more extensive than after the usual form of ligature. Other specimens exhibited showed that all ligatures of any quality applied so as to strangulate the arterial coats, whether dividing either of them or not, are removed by ulceration. One specimen was exhibited in which the fibrous remains of an occluded portion of artery had completely disappeared by absorption. The advantages claimed for the partial closure, by innocuous ligature, in the continuity of arteries, over and above the ordinary light silk ligature, are: 1. *No lesion is inflicted upon the coats of the artery.* 2. *All causes of suppuration are avoided.* 3. *There is no cause for subsequent disturbance of the wound.* 4. *The parts beyond are not deprived suddenly of their accustomed supply of blood, the collateral circulation increasing as the former supply diminishes.* 5. *There is nothing to prevent complete healing of the wound by first intention.* Dr. Howard related a case in which he ligated the femoral artery of a patient by this method for popliteal aneurism. The pulsation of the tumor ceased on the third day. The wound, to the line of the integument, was healed on the fifth day. On the tenth day the patient was walking about.

Puerperal Convulsions Successfully Treated by

Transfusion of Blood.—Prof. Lange, of Heidelberg (*Prag. Viertel-Jahrschrift*, 4th part, vol. 100) reports a case of puerperal convulsions successfully treated by transfusion. From the beginning of pregnancy, the patient had noticed slight œdema of lower eyelids and considerable swelling of the ankles and lower portion of the abdominal walls. The uterus contained an unusual amount of amniotic fluid. On entrance into the hospital three weeks previous to labor, the urine was found to contain albumen and casts in considerable quantity.

The œdema began soon to extend upward to the thighs, while the abdomen formed a pendulous sac. Œdema of back of the hands was now apparent, otherwise the patient felt well and had a good appetite.

On setting in of labor, eclamptic convulsions and consecutive sopor occurred without any premonitory symptoms. These were repeated so rapidly that three attacks occurred before the patient could be carried into the lying-in room. The urine became nearly solid upon action of heat.

Colpeurysis was employed to hasten labor, and delivery of a macerated fœtus took place seven hours after, during which sixteen attacks in all had taken place. The placenta followed and the uterus contracted without hemorrhage. Immediately after delivery of the placenta, an attack equal in intensity to the previous ones occurred. In the succeeding seven hours, seven further attacks occurred. As the anæmic appearance and œdema of the patient kept on increasing, Prof. L., fearful of employing venesection, applied leeches to the head, also ice. Clysters, repeated injections of morphia, and inhalation of chloroform, were employed, but without result. Thirty-two attacks in all had taken place since the first convulsion. There had been no return of consciousness since the first attack (except for a single moment), but the patient lay in profound sopor, with stertorous, rattling respiration.

Reasoning that, in any case, whether we adopt the uræmic theory of Frerichs, the hydræmic theory of Trolth and others, or whether we consider both hydræmia and uræmia to be at the foundation of the malady, the principal indication would be to restore the normal condition of the blood as rapidly as possible, he determined to try the effect of transfusion of blood. While fourteen ounces of blood were drawn from the median vein of the left arm, seven ounces of defibrinated blood were injected in three portions into the same vein of the right arm.

The pulse became smaller and more rapid; the respiration became freer, and the cyanosis of the countenance diminished. After an half-hour, the thirty-third attack occurred, which was of less intensity, of short duration, and the last one the patient had. Perspiration broke out, and in half an hour more she was no longer stertorous, and showed the first signs of returning consciousness in indistinctly articulating the word thirst, and swallowing, with difficulty, some water. She soon after fell into a quiet sleep, in which she remained until morning. Convalescence continued without interruption under suitable dietetic measures, and the patient was dismissed in a good condition.

Statistics of Ovariotomies.—M. Koeberlé (*Western Journal of Medicine*) recently presented to the Paris Academy the statistics of the ovariotomies performed by him since 1862. He says that the gravity of the ovariotomy is proportional to the complications which it offers. Sixty-nine operations presented by him—forty-five successful, twenty-four fatal—are thus analyzed in his regard:

Cases without adhesions, 20; cured, 17; deaths, 3

Cases with slight adhesions, 16; cured, 13; deaths, 3½.

Cases with extensive adhesions, 33; cured, 15; deaths, 18½.

The mortality of the operation is also proportional to the loss of blood, the duration of the operation, the length of the incision, the weight of the tumors.

The causes of death were as follows: Septicæmia in seven cases; peritonitis in five cases; peritonitis and septicæmia in six cases; internal strangulation, intestinal tympanitis, enteritis, in one case each.

Within the past year, M. Koeberlé has had great success in his operations; these results he attributes to new improvements in the method of operating, which were originated by him.

The Mortality from, and the Diminution of, Abdominal Hernia.—Mr. John Birkett (*British Medical Journal*), in a paper read before the British Medical Association, showed that the death-rate from hernia in the districts of London averaged 149 per annum, and 826 in England. Prostration, peritonitis, and injury of the bowels were stated to be the causes of death. The fatal results could only be averted by reducing the protrusion as quickly as possible by the taxis, and when that failed, by operation. Delay and violence in replacing the hernia were deprecated by him, as these circumstances produced many deaths annually.

Typhoid Cutaneous Spots.—The occurrence, in conjunction with an unusually copious roseolar eruption, of another one of a yellowish-brown color, of the size of a two-dollar piece and over, is described by Zulchaur (*Berliner Klin. Wochenschr.*, 1868, No. 12). The latter spots run into one another. They occur soon after the first chill. They were only observed in very severe cases, which in the first, or in the commencement of the second seven days' period, terminate in death.

A Clean and Beneficial Hair-wash.—The following formula makes a cheap and useful hair-wash:

℞.	Alcohol	℥ vss.
	Ol. Ricini	℥ ij.
	Tinct. Cantharidis } . .	āā.
	Ol. Bergamii } . .	℥ ij.

The Solubility of False Diphtheritic Membranes.—A short review of the work of MM. Brichsteau and Adrian on this subject is contained in the *Journal de Chimie et de Pharmacie* for May. The following experiment is of interest. "A tracheal false membrane, weighing about twenty centigrammes, thick, resistant, and representing a square centimetre of surface, was placed in a tub containing about five grammes of water. To this were added two drops of lactic acid; the solution was then agitated. In two minutes the membrane began to disintegrate, and gave signs of dissolution. A few drops more of the acid brought about the complete solution of the membrane. A more complete result was obtained by using lime-water, so as to form lactate of lime. Solutions of potash and soda acted much less powerfully. Bromine water, chlorate of potassa, and common salt, were all found less active in promoting solution of the membrane."

The solution of lactic acid is therefore recommended as the best topical application to the false membranes of diphtheria.—*The Practitioner.*

Bronzing Cast-iron.—The following method of giving cast-iron the appearance of bronze, without coating it with any metal or alloy, is laid down in the *American Artisan*. The article to be treated is first cleaned with great care, and then coated with a uni-

form film of some vegetable oil; this done, it is exposed in a furnace to the action of a high temperature, which, however, must not be strong enough to carbonize the oil. In this way the cast-iron absorbs oxygen at the moment the oil is decomposed, and there is formed at the surface a thin coat of brown oxide, which adheres very strongly to the metal, and will admit of a high polish, giving it quite the appearance of the finest bronze.

TREATMENT OF PROLAPSUS ANI.—Dr. Schartz (*Nashville Journal of Medicine and Surgery*) advocates for this affection a solution of the ext. of nux vomica, of the strength of one or two grains to the ounce of distilled water. Of this solution he gives six to ten drops every four hours. This is the dose for very small children; to larger children, fifteen drops at the same intervals. Two or three drops should be administered to children at the breast.

DISCOVERY OF METALLIC HYDROGEN.—At a meeting of the Lyceum of Natural History, held in December, Charles A. Joy, Professor of Chemistry of Columbia College, stated that he had received a communication from Professor Horsford, under date of December 25, in which the latter gentleman states that he had just received a letter from Professor Graham, of the Royal Society of London. Professor Graham made public, May 16, 1867, a paper on the occlusion of hydrogen gas in meteoric iron, showing that the meteoric iron came from hydrogen, and that it was included in the metal. Professor Graham now writes to Professor Horsford as follows: "I am at this moment closing a paper to show that palladium with occluded hydrogen gas is an alloy of hydrogenium, a white magnetic metal, of specific gravity of about two, appearing to have considerable analogy to magnesium." Professor Joy said that Professor Graham thinks that he has at last discovered the metallic hydrogen, and if his belief were correctly founded, it was undoubtedly one of the most important discoveries of this century. It was somewhat singular that so important an announcement to the scientific world should be brought to this country by mail instead of by telegraph, and he thought that if the persons who have the compilation of the cable dispatches knew the importance of such a discovery in science, it would have reached us before this time. The announcement of Professor Graham's discovery was received with applause, and the chairman congratulated the Lyceum upon the information, and tendered thanks therefor to Professor Joy.

EXPERIMENTAL RESEARCHES ON THE ACTION OF QUININE.—Dr. C. BINZ has been making an experimental study of quinine, with a view of discovering its mode of action. And he selects for experiment some of the infusoria developed in vegetable infusion; employing the neutral chlorohydrate of quinine, soluble in sixty times its volume of water.

He finds that this salt of quinine, even in weak solution, destroys these infusoria much more promptly than much stronger solutions of salicine, morphine, and strychnine; showing there is some peculiar antiseptic action different from that of other vegetable alkaloids. From these low animals, he proceeds higher up the scale; and eventually examines the effect of quinine on the blood. He fed two kittens with half an ounce of milk, and then subjected one of them to several subcutaneous injections of quinine. On examining the blood of these animals under the microscope, some time after, he found a marked diminution in the proportion of white globules on the part of the one which had been subjected to the action of the quinine. Before the experiment, this animal's blood showed more white globules than the other, 294: 214; after the experiment, the proportion was enormously reduced to 17 : 344.

Dr. Binz believes that subcutaneous injection of quinine retards the development of inflammation, and moderates its effects if it has been developed. Dr. Binz accepts the views of Dr. Salisbury, regarding the alga of intermittent fever, and explains the therapeutic effects of quinine in that disease, by its action in his experiments upon the lower organisms.

He believes the doses of quinine usually given to be too small, and suggests the use of the chlorohydrate in preference to the sulphate on account of its greater solubility.—*Allg. Med. C. Zeit., Berlin Kl. Woch., Memorabilien*, 1868.

TREATMENT OF PLACENTA PRÆVIA.—By a curious coincidence, the following cases of placenta prævia are recorded in the *Cincinnati Medical Repertory*, by two different medical men, showing the advantages of the tampon in this complication.

The first case came under the observation of C. H. Spillman, M.D., Harrodsburg, Kentucky. A primipara, seven months in pregnancy, while sitting at the sewing-machine, was suddenly attacked by uterine hemorrhage, unattended with pain. When first seen, about three-quarters of an hour after the attack, she was still flooding profusely; very pale; almost pulseless; with cold extremities.

On examination, it was found to be a placental presentation, and as near as could be ascertained, about the beginning of the seventh month. The tampon was resorted to; and, in a few hours, reaction was established. From this time to the full period, she was subject to a succession of hemorrhages at intervals ranging from ten days to three weeks, some of them profuse and exhausting, in which the tampon was used with the same salutary results. At the full term he was summoned in great haste, in what was represented to be another alarming hemorrhage. Upon arriving, she was found in labor pains, which had been commensurate with the flooding; the latter having ceased. Upon examination, the head had forced away the placenta, and had advanced sufficiently to compress the bleeding vessels, and all further danger from that source was removed. Its completion was left to nature, which was speedily accomplished.

The second case is reported by J. B. A. Risk, M.D., Morgan, Kentucky, and is interesting from the fact that, in addition to placenta prævia, a cross position of the fœtus was added. The history of the patient is as follows: She was a primipara, aged 33, and about seven and a half months gone; she had lifted a trifling weight before the hemorrhage came on, and had enjoyed good health previously.

On examination of the os uteri, a small clot of blood was found protruding. The finger could not detect any part of the fœtal oval; but the sensation given indicated that something of a fleshy nature was interposed between the os and the contents of the uterus. The os uteri was of a conical shape, as though a part of it was imperfectly developed in the general cavity of the uterus.

This peculiarity of the os uteri gave evidence that the placenta occupied its intra-uterine disk, and he discovered that it was a central implantation of that body. On the right side a tumor was recognized through the parietes of the abdomen, about the size of the fœtal head, which he believed it to be. He succeeded, by gentle manipulation, in placing it at the mesial line of the uterus, and behind the os pubis,

where it remained until version was resorted to in order to save the patient.

About four hours after his arrival, she was found to be flooding; her pulse had run up to 100 beats to the minute; large quantities of coagula and fluid blood were poured forth to an alarming degree. A tampon was immediately introduced, and held firmly for a space of three hours, during which time there was but little oozing. On the introduction of the tampon, as much as 15 grains of ergot was administered, and repeated every thirty minutes, until the uterus might assume a more active condition than it had evinced hitherto. The contractions were, as desired, very much increased.

He hoped by this that sufficient pressure by the contents of the uterus upon the placenta would ensue, and prevent further loss of blood and increase the dilatation of the os.

On withdrawing the tampon, which was followed by a few clots of blood, the finger was carefully introduced, and the mouth of the womb was found to have dilated two inches, and still dilatable. He concluded to introduce his hand and deliver at once, in order to save the patient. The hand passed readily to the second joint of the fingers; but, on further efforts, the os uteri was thin and unyielding, and tied, as it were, like a whip-cord around his fingers. Fearing a laceration of that organ, he desisted and withdrew his hand, hoping that further time might result in its softening. By the prompt use of the tampon, held firmly in its place for two hours by the hand, together with a moderate action of the uterus, brought on by the use of ergot, there was no hemorrhage. At the end of two hours, the plug was withdrawn, and the hand was easily introduced. On reaching the cavity, high up on the left side, a fœtal extremity was felt, which proved to be a hand. Higher up, a foot was discovered, which was brought down, and made to revolve on its own axis. It was secured with a tape string; and the assistant was directed to push gently upon the uterine tumor. After the child was turned, the face was found in the hollow of the sacrum, from which it passed readily through the os externum. The placenta, which was of normal size, followed. The child was dead; and from its appearance, was between seven and eight months maturity. The patient made a good recovery.

In conclusion, he states that this case is presented at length to the profession, hoping that it will be found interesting, and confirm the views of some of our eminent men as regards the utility of the tampon in placenta prævia; also the practicability of placing the fœtus, when transverse in utero, by external manipulations in a more favorable position for its transit through the pelvic cavity.

Carbolic Acid Treatment in Surgery.—Dr. Kelburne King, of Hull, read a paper "On Carbolic Acid and the Antiseptic Treatment in Surgery." Modern science shows that suppuration is not a wearing process in cases of those wounds which do not heal by first intention; granulation can occur without suppuration. Access of air is the most common cause of suppuration, not on account of the air itself, but the germs which are contained in it. Carbolic acid diminishes or annihilates suppurative action. The author had employed in different cases dressings of (1) solution of carbolic acid; (2) carbolic oil, proportion one to four; (3) carbolic putty—i.e., whiting added to carbolic oil to a desired consistence. The author claimed for the treatment: 1. That decomposition of discharges is prevented. 2 That it enables those parts injured beyond redemption to slough away without becoming foci for the re-formation of pus. 3. That it exercises a control over the formation of pus in the centre of wounds. 4. That it diminishes the chances of blood-poisoning. 5. That it is of signal service to the patient himself and to those surrounding him, as all fetor is absolutely prevented.

Phenic Acid in Syphilis.—Dr. Minteforte (in the Italian *Journal of Venereal Diseases, &c.*) recommends the application to syphilitic ulcers of a solution of phenic acid in water, 5 parts to 100. Dr. Fidele de Fieri extols the deuto-phosphate of mercury, one grain a day, continued for two months, in tertiary syphilis.

Extirpation of the Uterus for Complete Prolapse.—Prof. Langenbeck, of Hanover, has recently performed this operation upon a woman 48 years of age, who had suffered from prolapse since the birth of her first child eighteen years previous. She had borne nine children since then. The result was a good one. The patient removed the ligatures herself from the eighth to the tenth days. The operation was performed on the 15th of May; on the 29th she left her bed; and on the 31st she took her first walk in the open air.—*Memorabilien*, 1868.

Warm Cod Liver Oil.—Dr. Betz finds warm cod liver oil often tolerated, when the oil cold cannot be borne.—*Memorabilien*, 1868, p. 24.

Excision of the Scapula. — On October 2d, Mr. Sydney Jones removed, at St. Thomas' Hospital, London, the entire scapula, with the exception of the acromion. The disease was enchondroma, and the mass removed weighed nearly eleven pounds. Not more than from three to four ounces of blood was lost. The case terminated fatally on the fifth day, the patient having apparently died from shock.

Statistics of Inebriation.—Dr. McKinley, of St. Louis (*St. Louis Med. Reporter*), has compiled, after a very careful research, some very interesting and startling statistics of inebriation in the United States. From him the following items are extracted:

Taking the population of this country at forty millions; of 300 men, 122 never drink spirits at all; 100 drink moderately, but not to intoxication; 50 are ephemeral drinkers; 25 drink periodically, called "spreeing;" and 3 are habitual inebriates. To every 178 who drink, 3 are confirmed inebriates; 25 are periodical drinkers; 50 are ephemeral drinkers. One confirmed inebriate to every 59½ of men. Of 700 women, 600 never taste alcoholics of any kind; 30 taste wine occasionally; 17 taste ardent spirits; 36 drink ale or beer constantly; 14 drink ardent spirits periodically, nd 3 are habitual inebriates.

Predominance in *confirmed inebriates* of the sexes: 3 men in every 178; 3 women in every 100; 1 confirmed inebriate to every 33⅓ of women. Fewer women drink than men; but a larger proportion of them become habitual drinkers. Debauch drinkers rarely become habitual, but periodical drinkers; the latter rarely become habitual inebriates, as the violence of their drinking is too great, and leads to disgusting satiety, and hence to intervals of sobriety.

Cinchona in India.—The cultivation of cinchona in India is being carried on with great success. A very large area of land in the Neilgherries, at the Punjaub, and at Darjeeling, is now stocked with healthy vigorous plants.

A Tasteful Invention.—We learn from a contemporary that, at a recent meeting of the Medical Society of London, a member exhibited "an adaptation of the mouth to the uterine speculum."

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UTILIZING MEDICAL EXPERIENCE.

THERE is no doubting the fact that all the real success in the practice of medicine and surgery depends upon experience. The practitioner who has had the greatest opportunities for acquiring a practical knowledge of his profession is, all other things being equal, the most trustworthy man. It it well known, however, that certain physicians have more of a tact for acquiring this sort of knowledge than others, but by proper management all can be placed upon an equal footing in applying that which they already possess, and adding to it by new facts which may present themselves. In order to do this well, however, requires something more than practice *per se*, something more than a mere reliance upon practical tact. It is necessary that some definite system should be followed to utilize the every-day experiences of us all, to snatch from a more or less confused recollection the numerous points which may serve as guides to us in the future. The majority of physicians, in the practice of the their profession, trust almost wholly to their general knowledge of their cases, and so long as they can stumble along through a cloud of conjecture as to diagnosis and treatment they are satisfied. The chronic plea of want of time to do anything more is, in our opinion, too transparent a one to hide the real reason of culpable laziness.

The only true way to render available our daily experience, to benefit ourselves, to advance the cause of true science, and to do the greatest possible good to our patients, is to keep an accurate and systematic record of our cases as they occur. It is useless to argue that such a practice is not fraught with the best of results, even when comparatively trivial cases are preserved; it is, in fact, from a collection of the latter in a careful way that we gain the most.

The most exact men in our ranks are in the daily habit of keeping such records of their cases, and very many of them have them so arranged that for purposes of statistics as to treatment, prognosis or diagnosis, they can utilize them at any moment. When such give their opinions to the world, they are always reliable and always based upon such facts as have been accurately observed at the very bedside of the patient. There is, after all, comparatively little time spent in keeping such accounts of cases up to date; it is done daily with hundreds of cases in our hospitals by our internes, who have besides abundance of time for an extra study of their cases, for performance of all their duties to the patients, and for recreation besides. The whole secret of this comparative ease in the performance of an otherwise irksome task rests in the determination not to allow the work to get behindhand.

One of the many benefits that grow out of such a practice fairly followed is the cultivation of a system of investigating cases, of almost insensibly memorizing the cardinal points, and of estimating the real value of remedies employed. Nothing impresses a fact upon the mind so firmly as compelling oneself to make some sort of record of it; and the more constantly this is done, with the same set of facts, the greater are the chances that they will not be easily forgotten. In regard to the matter of therapeutics, how often is it necessary to know not only what the patient is taking, but what he has been taking, how long a certain remedy has been used, and in what form! With a physician in large practice a great deal of difficulty not unfrequently exists in attempting to remember the previous prescription of a particular patient; and if no account of the visit is kept, a great deal of time is often spent in attempting, by a certain circumlocution, to ascertain from the patient what he is taking. This same time lost amounts to more in the aggregate than would be allowed by our busy brother for transcribing the said prescription in the first place. The memory need not be refreshed by the patient on other matters, especially those relating to symptoms, if an every-day account is kept.

The means to be adopted in bringing about the end are various enough; each practitioner being at liberty, if he objects to any of the many systems published in the visiting-lists, to form one of his own, and improve on it according to his individual necessities. The visiting-lists, as a rule, do not make the provisions absolutely necessary for writing out the cases as they should be. It is obviously necessary, in order to carry out any good plan satisfactorily, that the actual labor must be reduced to such a minimum as is consistent with the detailing of all the necessary facts.

The plan usually adopted in our hospitals is to devote a slip or slips to each patient from the time of his entrance to his discharge or death, and when one or other of these latter events occurs, the case is transcribed in a large book kept for the purpose. The necessary notes of each case are made in a small blank book in the actual presence of the patient. A modification of such a system might easily be contrived by every practitioner, due provision being made against the necessity of carrying from house to house any bulky documents.

Dr. Thomas King Chambers, of London, at a recent meeting of the British Medical Association, described a

plan which is, with the reasons for its adoption, briefly described by one of our London contemporaries as follows:

"He writes all his prescriptions and papers of advice in a copying-book, which preserves a duplicate of them by means of transfer paper, and at the back of this transcript he writes, usually with the patient before him, always before he attends to the next case, the history, so far at least as to explain his reasons for the advice. The periodical indexing of these pages is an easy job for an hour of weariness; and the whole time consumed is so crumbled up that it is never missed, and neither business nor amusement can complain of the robbery. These notes serve as corrections to our memories; they make available to the increase of real knowledge that which is otherwise just as likely as not to lead to imperfect, and therefore false, knowledge; they turn a stumbling-block into a stepping-stone."

In another column we publish the programme of the next meeting of the American Medical Association, to be held in New Orleans on May 4th. As it is obviously desirable that there be a goodly attendance of Northern delegates, it becomes necessary to lessen the expense of travel by some such arrangement as that in process of preparation by Dr. Hibberd of Indiana. Why cannot a suitable vessel be chartered by some parties to stop at the principal cities on the Atlantic coast? We would be happy to give ample publicity to any arrangement that would meet the requirements of the case.

In order to give us ample time for the preparation of illustrations for the lecture of Prof. Dalton on the Trichina Spiralis, we shall be compelled to delay the article probably until the number for April 15.

Reviews and Notices of Books.

A Treatise on the Diseases of Infancy and Childhood. By J. Lewis Smith, M.D., Curator to the Nursery and Child's Hospital, N. Y., Physician to the Infants' Hospital, Ward's Island, Professor in Bellevue Hospital Medical College, N. Y. Philadelphia: Henry C. Lea. 1869. 8vo., pp. 620.

The author of this volume is well known as a valued contributor to the literature of his specialty. The faithful manner in which he has worked in the public institutions with which he has been connected, the conscientious regard for truth which has for years characterized all his researches, the great amount of experience which he has been enabled to acquire in the treatment of infantile diseases, and the care with which he has accustomed himself to take in the study of the significant facts relating to the pathological anatomy of the diseases of childhood, eminently fit him for the task which he has taken upon himself.

Those who have become acquainted with Prof. Smith through his published papers in this and other journals, may, however, be disappointed in not having a more elaborate work; but after perusing it they will find that all the really essential points are properly stated. The remarkable faculty of bringing out salient points and stating concisely other less important facts, enables him to crowd within a small compass a vast amount of practical information. Except the part of the work which speaks of many of the anomalous affections of the brain, the treatise is such as would meet the requirements of every student and practitioner.

The attention given to the treatment of the various maladies, as well as the presentation of all the recently accepted pathological views, make it one of the most valuable treatises, within its present compass, that can be placed in the hands of any seeker after truth. The volume as a whole will still further establish for the writer a permanent and enviable reputation as a careful observer, an impartial interpreter, a safe and trustworthy adviser, and a modest and untiring student.

Pennsylvania Hospital Reports. Vol. II., 1869. Philadelphia: Lindsay & Blakiston. 8vo. pp. 320.

About a year ago we noticed the first volume of these reports, and gave our readers an idea of its general contents. The same plan has been followed in the present one, which consists for the most part of papers of a practical character, based chiefly on observations made in the hospital, especially to such as may be considered as leading features in the practice of the said institution. As it is obviously impossible to review each one of the many papers which compose it, we can do no more than name them by title, with a general commendation for their individual excellences.

The following are the articles in general order:—I. The Influence of the Weather over the Results of Surgical Operations, and the Value of the Barometer as a Guide in the Choice of the Time for, and the Prognosis in, such Operations, by Addinell Hughson, M.D. II. Statistical Account of the Cases of Urinary Calculi Operated on in the Pennsylvania Hospital from 1756 to 1868 inclusive, with Remarks, by F. G. Morton, M.D. III. AContribution to the Therapeutics of Acute Rheumatism, based on a Series of Cases treated with Bromide of Ammonium, by J. M. Da Costa, M.D. IV. Intra-cranial Aneurism, with Report of a Case observed, and Table containing Thirty-three Cases, by James H. Hutchinson, M.D. V. Review of the Treatment of Oblique Fracture of the Clavicle, including Remarks on the Ruling Indications, by Edward Hartshorne, M.D. VI. Excision of the Hip-Joint, with Special Reference to the Treatment of Hip Diseases, by John Ashurst, jr., M.D. VII. Fatal Chorea, consequent on the Aggravation caused by a Simple Fracture of the Humerus, by William Hunt, M.D. VIII. History of Two Cases of Cerebritis; one from some unknown cause; the other traumatic; Recovery under active depletion, by J. Forsythe Meigs, M.D. IX. Notes on the Principles of the Treatment of Fractures, by John H. Packard, M.D. X. A Condensed Summary of a Portion of the Cases Received and Treated in the Lower Surgical Wards of the Pennsylvania Hospital, from Feb. 1 to Aug. 1, 1868, by D. Hayes Agnew, M.D. XI. Report of a Case of Retroversion of the Gravid Womb, with Remarks, by G. C. Harlan, M.D. XII. Pathological Observations on a Case of "Spindle-celled Sarcoma" (Virchow), etc., by James Tyson, M.D. XIII. The Identity of the White Corpuscles of the Blood, with the Salivary, Pus, and Mucous Corpuscles, by Joseph G. Richardson, M.D. XIV. New Method of Making Topical Applications and Injections in the Urethra, Bladder, and Uterus, by Addinell Hewson, M.D. XV. Case of Congenital Sacral Tumor, containing an Intra-growth of Fœtal Remains, by T. G. Morton, M.D. XVI. Extracts from Clinical Lectures, by William Hunt, M.D. XVII. A New Sur-

gical Dressing, by D. Hayes, Agnew, M.D. XVIII. The Ward Carriage, by William Hunt, M.D. XIX. Observations on the Temperature in Phlegmasia Dolens, occurring in a case of Typhoid Fever under the charge of Dr. J. F. Meigs, by Elliott Richardson, M.D. XX. Hypodermic Injection of Sulphate of Morphia in the Treatment of Sunstroke, with a Table containing a List of Cases treated at the Hospital during June and July, 1868, by James H. Hutchinson, M.D. XXI. Descriptive List of the Specimens added to the Hospital Museum during 1868, by William Pepper, M.D., Curator. XXII. Abstract of the Cases treated in the Pennsylvania Hospital, in the year ending April 25, 1868. XXIII. Statistics of the Hospital for the Year 1867–1868.

From a glance at the foregoing, it will easily be seen what an immense amount of valuable practical matter is contained in the present volume. The variety is everything that could be wished for, and the editors, Drs. Da Costa and Hunt, are to be congratulated for the very admirable manner in which they have arranged the papers of their confrères. There are quite a number of well-executed woodcuts throughout the work, and the get up of the volume is in every respect equal to its well-executed, handsomely-bound predecessor.

A TREATISE ON THE PRINCIPLES AND PRACTICE OF MEDICINE, designed for the Use of Students and Practitioners of Medicine. Third Edition, Revised and Enlarged. By AUSTIN FLINT, M.D., Professor of Principles and Practice of Medicine in Bellevue Hospital Medical College. 8vo,, pp. 1,002.

WE have deferred calling attention to the third edition of this work, for the reason that we have desired time to take cognizance of the additions that have been made. These, we can now assure our readers, have been considerable, principally based upon the clinical experience of the author. It fully sustains its previous reputation as a standard text-book.

A RATIONAL TREATISE ON THE TRUNKAL MUSCLES, elucidating the Mechanical Causes of Chronic Spinal, Pelvic, Abdominal, and Thoracic Affections; and of Bronchial and other derangements incident to the Clerical, Legal, and Musical Profession; with the Rationale of their Cure by Mechanical Support. By E. P. BANNING, M.D. New York: W. A. Townsend & Adams. 1868. 8vo., pp. 362. Illustrated.

THE principles of mechanical therapeutics, as applied to the treatment of special deformities in orthopedy, and to deformities and its results on the vital organs in the localized gymnastics of Kinisopathy, are here applied to the treatment of uterine and other visceral displacements. Our author maintains in one of his fundamental propositions, that "the viscera are as much under the law of a specific orbit of being and bearing as the bones, and any departure from this will constitute a practical dislocation, which may involve corresponding functional derangements by cancelling the primary relations between these organs and their vital forces. Acting upon this view, he traces many cases of visceral disease to abnormal position of the organ, in consequence of improper carriage of the trunk; and in their treatment he seeks to restore a normal position by means of extraneous supports, which shall interfere as little as possible with the natural movements.

These appliances are very ingenious; in some respects superior to most of those already in common use, and as we have learned from some physicians who have employed them, remarkably adapted to their purpose, and useful in their results. Explicit instructions for the employment of these apparatus are given, and a number of cases narrated, illustrative of the benefits which have accrued from them. Thus far the work is an extension of the author's papers recently contributed to the columns of the *Medical and Surgical Reporter of Philadelphia.*

Under the caption "Muscular Laxity and its Pathological Effect," our author discusses the effects of dorsal abdominal laxity upon the pulmonary organs; attributing to this cause much of the pulmonic and vocal troubles of public speakers and vocalists; troubles which he claims can be rectified by the use of his mechanical supports to back and abdomen.

We have no doubt, though inclined to believe the author is riding a hobby too far, that much benefit may be derived in relieving the visceral displacements of females, and with them much of the direct and reflex cause of certain diseases, by the employment of the means so enthusiastically recommended by our author; but we should suppose much consideration and a certain amount of mechanical skill necessary to the physician, in adapting these or other supports to the requirements of individual cases. The apparatus devised by the author show him to be possessed of a greater amount of mechanical skill than most of the profession, and this must be taken in account, in reference to the number and character of the cases narrated and referred to.

The book is printed in large, legible type, on the tinted paper now so fashionable in medical literature, and forms an elegant volume.

The portrait of the author, represented as holding in his hand a pamphlet with his own name upon it, and the ostentatious display on separate pages of a few short letters from English medical men, are rather calculated to impress one unfavorably with regard to the subject-matter that follows.

We would recommend the careful perusal of the volume by all interested in mechanical therapeutics, and the treatment of displacements of the uterus and adjacent viscera.

A CONSPECTUS OF THE MEDICAL SCIENCES: Comprising a Manual of Anatomy, Chemistry, Materia Medica, Practice of Medicine, Surgery, and Obstetrics, for the use of Students. By HENRY HARTSHORNE, A.M., M.D., Professor of Hygiene in the University of Pennsylvania, Auxiliary Faculty of Medicine; Professor of Organic Science and Philosophy in Haverford College, etc., etc. With three hundred and ten illustrations. Philadelphia: Henry C. Lea. 1869. 12mo., pp. 1,002.

THIS work is a remarkably complete one in its way, and comes nearer to our idea of what a Conspectus should be than any we have yet seen. Prof. Hartshorne, with a commendable forethought, entrusted the preparation of many of the chapters on special subjects to experts, reserving only anatomy, physiology, and practice of medicine to himself. As a result we have every department worked up to the latest date and in a refreshingly concise and lucid manner. There are an immense amount of illustrations scattered throughout the work, and although they have often been seen before in the various works upon general and special subjects, yet they will be none the less valuable to the beginner. Every medical student who desires a reliable refresher to his memory when the pressure of lectures and other college work crowds to prevent him from having an opportunity to drink deeper in the larger works, will find this one of the greatest utility. It is thoroughly trustworthy from beginning to end; and as we have before intimated, a remarkably truthful outline sketch of the present state of medical science. We could hardly expect it should be otherwise, however, under the charge of such a thorough medical scholar as the author has already proved himself to be.

ESSENTIALS OF THE PRINCIPLES AND PRACTICE OF MEDICINE: A Handy Book for Students and Practitioners. By the same author. Second edition. Phila.: H. C. Lea. 1869.

WE have so recently noticed the first edition of this work that it is unnecessary to do more than call attention to the fact that a second, with numerous improvements, is already out. The general plan of the work has been preserved, the only notable additions being those under the head of practice of medicine, which have been rendered necessary since the original work made its appearance.

THE PHYSICIAN'S DAILY POCKET RECORD: Comprising a Visiting List, many useful Memoranda, Tables, etc. By Dr. S. W. BUTLER, M.D. Philadelphia: Office of Medical and Surgical Reporter, 115 South Seventh street. 1869.

OUR good opinion of this convenient, handsome, and useful Pocket Record remains unchanged. The last edition comes to us with a great improvement in binding, a spring tuck taking the place of the old style pocket-book one.

THE TRANSACTIONS OF THE NEW HAMPSHIRE MEDICAL SOCIETY (Seventy-seventh and Seventy-eighth Anniversaries) held at Manchester, June 4, 5, 1867; and June 2, 3, 1868. Paper, pp. 142.

THE Medical Profession of the "Granite State" seem to be wide awake in their Medical Society, if we can judge of their deeds, and contributions in medical lore, by their Transactions, which have just come to hand. At their anniversary meeting in 1867, Dr. R. P. J. Tenney, President, discoursed on the "Mind" in an interesting style. His subject was divided into two parts, viz.: *First.* What is mind? *Second.* Where is the mind located? The manner in which the subject was discussed was quite ingenious.

Dr. A. B. Crosby followed the president with a very lucid address on "Septicæmia." It was a *resumé* of the subject down to the present time.

At the seventy-eighth anniversary in June, 1868, A. H. Robinson, M.D., delivered the annual address, in which he counselled the members of the Society to elevate and advance the science of medicine, &c., &c.

An address on "Medical Diagnosis," by J. N. Wheeler, M.D., is appropriate at the present time, as no physician can practise medicine in a skilful manner without a complete knowledge of diagnostics.

The oration on "Medical Education," by L. B. How, M.D., is exceedingly amusing and well worth a perusal.

The next meeting will be held at Concord, on the third Tuesday of June, 1869.

CONSERVATIVE SURGERY IN ITS GENERAL AND SUCCESSFUL ADAPTATION IN CASES OF SEVERE TRAUMATIC INJURIES OF THE LIMBS, WITH A REPORT OF CASES. By ALBERT G. WALTER, M.D. Pittsburgh: 1868. 8vo., pp. 213.

THIS volume is dedicated to Profs. Gross of Philadelphia, and Syme of Edinburgh, and consists of a narration of sixty-five cases of severe injuries occurring in the practice of the author, in which the highly satisfactory results have been due to a conservative plan of treatment original with the author, and consisting in the prompt evacuation of the effused blood confined under fascia, between muscles, and in the cellular tissue of the skin, by long and deep incisions; and the avoidance of stitches to bring the separated soft parts together. This treatment has been adopted in all cases of severe injury, such as is produced by the wheels of railroad cars, etc., in which the bones are fractured and comminuted, and the soft parts crushed, but with main arterial and nervous trunks intact. We are familiar with many of Dr. Walter's contributions to journal literature on the subjects of orthopœdic, plastic, and conservative surgery, and we have the greatest confidence in his observations. We have learned from two surgical friends connected with railroad companies, who have adopted the plans suggested and already acted upon by our author, that they have met with success far exceeding what they could have hoped to realize without these primary incisions. We consider the volume before us a most valuable original contribution to surgery, and strongly urge upon every practitioner of surgery to render himself familiar with its contents.

LECTURES ON THE DIAGNOSIS AND TREATMENT OF FUNCTIONAL NERVOUS AFFECTIONS. By C. E. BROWN-SÉQUARD, M.D., etc., PART I. Physiological Pathology and General Therapeutics of Functional Nervous Affections. Phil., Lippincott & Co., 1868. 8vo., pp. 89.

THIS is the part of a work recently issued, to be followed by two other parts. These latter have not yet come to hand, and, it is presumed, are not yet issued. As soon as the work is completed, which will no doubt be in advance of anything hitherto published on the subject of which it treats, we shall speak of it at length, and call the attention of our readers to its special merits. At present, we can only advise every one who wishes to be thoroughly posted in regard to the symptoms and treatment of functional nervous affections to procure this Part, and the others as soon as they appear. No writer of our times is so well qualified to give a practical history of the diagnosis and treatment of neuroses, founded upon clinical observation enlightened by physiology and experimental pathology and therapeutics, as the author of this *brochure*.

TWENTY-FIRST ANNUAL REPORT OF THE COMMISSIONERS OF THE ERIE COUNTY PENITENTIARY. 1868.

THE total number of prisoners in the institution for the year 1867 was 2,486; the daily average 303 in the house. The Physician, G. E. Mackay, M.D., reports but one death during the year, which is certainly remarkable, considering the daily average of inmates, and the character of the class admitted. The Dr. speaks of "*delirium tremens* and *venereal diseases*," as constituting the greater proportion of the cases presented for treatment, although dysentery, diarrhœa, cholera morbus, remittent and other fevers, pulmonic affections, etc., prevailed more or less in the institution during the year. The report would be more satisfactory if the number of cases of each disease was given, and the mortality. This is the only proper way of making out such reports.

A HAND-BOOK OF VACCINATION. By EDWARD C. SEATON, M.D., Medical Inspector to the Privy Council. Philadelphia: J. B. Lippincott & Co. 12mo., pp. 383.

THE author of this valuable book is a fit person to give advice on various points connected with the practice of *vaccination*, on account of the knowledge and experience obtained by him during several years past, while acting in his official capacity. In the first part of the work the following topics are discussed in an interesting manner: The natural Cow-pox; the Horse-pox, and relation of Cow-pox and Horse-pox to human variola. In studying the natural history of vaccination in the cow, the observations of *Robert Ceely* are duly respected. We learn that milch cows and heifers are more subject to this spontaneous disease than older cows. Although the ordinary symptoms following vaccination seldom call for any treatment, still a few timely hints are noted, which the young practitioner will appreciate. In the selection of lymph-producers, babies of dark complexion, not too florid, with a thick, smooth, clear skin, should be sought out. Although Jenner's "golden rule" is generally adhered to by the profession, when procuring lymph, he very properly

states that just as soon as the vesicle will yield a small quantity, it should be taken, as it is more effective than when secured at a later period.

It is shown conclusively, from statistics in the last chapter on "Objections to Vaccination"—although some have contended that many who have been saved from small-pox by vaccination, have died of other diseases brought on by the operation—that his assertion is not well founded. In London, for example, the annual death-rate from all causes, at the middle of the last century, was 355 per 10,000 of the population, and from all causes, *except small-pox*, 325; but in the middle of the present century it was, *including small-pox*, but 249. When we reflect that before the day of vaccination small-pox carried off 3000 out of every million of the population of England, a death-rate which, with the present population of that country, would give an average of considerably more than sixty thousand deaths from small-pox a year, we can understand how much the world is indebted to the discovery of the immortal "Jenner."

He denies, in closing, that *syphilis may be invaccinated*, and says: "The danger, if indeed there be any at all, of communicating *through vaccine lymph, as in an ordinary well-performed vaccination*, any other infection than its own, must be so infinitesimally small, that for all practical purposes we may regard it as non-existent."

As a text-book for our professional brethren and medical students, it is to be hoped that it will find its way into every medical library. Since the publication, in 1809, of "Bryce's Practical Observations on the Inoculation of the Cow-pox," there has been, save this, no substantial work published, within our knowledge, on this subject.

ANNALES MEDICO-PSYCHOLOGIQUES, etc., PAR MM. LES DOCTEURS BAILLARGER, CERISE, ET SUNIER. Quatrième Série—Tome Douzième-vingt. Sixième Année. Paris, 1868. 8vo.

THIS is probably the ablest journal of the day, relating to insanity, nervous affections, and legal medicine. Its conductors are all distinguished for their knowledge of insanity; experts who stand at the head of this department of medical science. Its collaborators are, many of them, at the head of the principal lunatic establishments of France, members of the Academy of Medicine and the French Institute, or Professors in the University. Each number contains a complete *resumé* of what is contained in all the European journals, on the subject of insanity, etc., and the proceedings of the *Medico-Psychological Society* of Paris, etc. No one who feels any interest in the cause of the insane can well do without this journal.

REPORT OF THE PROCEEDINGS OF THE ASSOCIATION OF MEDICAL SUPERINTENDENTS OF AMERICAN INSTITUTIONS FOR THE INSANE, at their 22d annual meeting, held at Boston, Mass., on the 2d, 3d, 4th and 5th days of June, 1868. 8vo., pp. 209.

THE last seems to have been one of the most important annual meetings ever held by the superintendents of American insane asylums. Much of their time was occupied in discussing the "project of a law for regulating the legal relations of the insane," to be adopted by all the States whose existing laws do not already satisfactorily provide for securing the rights of the medical superintendents, as well as of those intrusted with their care or connected with them by ties of relation or friendship, as well as to promote the ends of justice and enforce the claims of an enlightened humanity. After a very full and able discussion of the whole subject, the Association unanimously agreed in adopting the project of a general law, to be recommended for the above purposes, the main features of which are embodied in the following provisions:

1. Insane persons may be placed in a hospital for the insane by their legal guardians, or by their relatives or friends, in case they have no guardians; but never without the certificate of one or more respectable physicians, after a personal examination, made within one week of the date thereof: and this certificate to be duly acknowledged before some magistrate, or judicial officer, who shall certify to the genuineness of the signature, and to the respectability of the signer.

2. Insane persons may be placed in a hospital, or other suitable place of detention, by order of a magistrate, who, after proper inquisition, shall find that such persons are at large, and dangerous to themselves or others, or require hospital care and treatment, while the fact of their insanity shall be certified by one or more reputable physicians, as specified in the preceding section.

3. Insane persons may be placed in a hospital by order of any high judicial officer, after the following course of proceedings, viz.: on statement in writing of any reputable person, that a certain person is insane, and that the welfare of himself or of others requires his restraint. It shall be the duty of the judge to appoint immediately a commission, who shall inquire into and report upon the facts of the case; if, in their opinion, it is a suitable case for confinement, the judge shall issue his warrant for such disposition of the insane person as will secure the objects of the measure.

4. The commission provided for in the last section shall consist of not less than three nor more than four persons, one of whom, at least, shall be a physician, another a lawyer. In their inquisition they shall hear such evidence as may be offered touching the merits of the case, as well as the statements of the party complained of, or of his counsel. The party shall have reasonable notice of the proceedings, and the judge is authorized to have him placed in suitable custody while the inquisition is pending.

5. On a written statement being addressed, by some respectable person, to any high judicial officer, that a certain person, then confined in a hospital for the insane, is not insane, and is thus unjustly deprived of his liberty, the judge, at his discretion, shall appoint a commission, of not less than three nor more than four persons, one of whom, at least, shall be a physician, and another a lawyer, who shall hear such evidence as may be offered touching the merits of the case, and without summoning the party to meet them, shall have a personal interview with him, so managed as to prevent him, if possible, from suspecting its objects. They shall report their proceedings to the judge, and if, in their opinion, the party is not insane, the judge shall issue an order for his discharge.

There are other minor provisions recommended, though the above are the principal ones. Taken as a whole, they are wise and judicious, and if adopted, will no doubt go far to satisfy the public as well as all who are interested.

MICROSCOPIC EXAMINATION OF BLOOD: and Vegetations found in Variola, Vaccinia, and Typhoid Fever. By E. H. SALISBURY, M. D. New York: Moorhead, Bond & Co., Printers. 1868. pp. 67.

IN this little book the author presents to the world some of the results of eight years' labor with the microscope. He claims to have made already over thirty-five thousand individual examinations of the blood; an average of nearly fourteen on each secular day. It is stated, moreover, that in all the more important of these, care-

ful drawings and notes have been preserved. A list of sixty-seven conditions to be sought for in blood is followed by a brief review of the appearances noted in health, in rheumatism, in tuberculosis, anæmia and thrombosis. The spores of Entophyticus hæmaetus and Zymotosis regularis, are said to be always present in healthy blood. Plates and descriptions are given of the parasites considered peculiar to the diseases mentioned in the title.

Notwithstanding some blemishes of style, probably due to haste, this little work must be considered important. We are told in the outset that its object is to enable others to "commence and extend investigations in the same direction." This is undoubtedly a hint to such as doubt the correctness of the author's conclusions to meet him upon his own ground. We have not yet sufficient experience to permit our entering upon this question, but we cheerfully concede to Dr. Salisbury much credit for expending so large an amount of time and energy in a new field of investigation.

AN INQUIRY INTO THE INFLUENCE OF ANTHRACITE FIRES UPON HEALTH; WITH REMARKS UPON ARTIFICIAL MOISTURE AND THE BEST MODES OF WARMING HOUSES. By GEORGE DERBY, M.D., Surgeon to the Boston City Hospital, etc. Second Edition. Boston: A. Williams & Co. 1868. pp. 76.

THIS little treatise is another attempt to show that the ill effects experienced in most of our modern houses, warmed by hot-air furnaces burning anthracite coal, are due not to a deficient supply of moisture, as is commonly supposed, but chiefly to the escape of carbonic *oxide* gas (and in a less degree to that of carbonic acid gas, and the compounds of sulphur) through the joints of furnaces, and also through the castings themselves—cast iron having been proved by recent experiments to be permeable to gases.

Among the means of relief proposed, where anthracite must be used for heating purposes, are attention to the joints of stoves and furnaces to secure their tightness, a brick lining to fire pots, and the substitution of soapstone or of wrought iron, made steam tight, for the permeable cast-iron now generally employed.

We welcome this well-written treatise as a valuable contribution to hygiene, and hope to hear further from the author on this and kindred subjects, which belong to his chair of "University Lecturer on Hygiene in Harvard University."

LECTURES ON THE STUDY OF FEVER. By Alfred Hudson, M.D., M.R.I.A. Philadelphia: H. C. Lea. 1869.

THIS work, which has for some time past appeared by signatures in the *Medical News and Library*, is now presented to us in a neat octavo volume of 316 pages. The title expresses fully the purpose and method of the work. It is not a labored attempt to collect all that has been written upon the different varieties of continued fever, but rather an effort to assist the student to form a true conception of the fundamental characteristics of fever whatever its type. Its causes, predisposing and exciting, its pathology and symptomatology, its complications, its diagnosis, prognosis and treatment, are each in turn set forth in a lucid and interesting manner. The author thus treats three forms, side by side, without confusion, *typhus*, *typhoid*, and *relapsing synocha*. The first he shows to be excited by ochlesis, or crowding, and to be capable of deportation; while the second, without this latter characteristic, is typically caused by fæcal miasm, or the gases arising from fæcal matter undergoing decomposition. This form is also named enteric fever. Synocha is attributed to an atmospheric or epidemic influence, which is recognized in the simultaneous outbreak or decline in distant places, while the disease is of uniform character in all. This is further shown by the tendency to peculiar complications during the period: and by the fact that concurrent diseases often present some of the symptoms of the prevalent fever. This type occurs at uncertain intervals, frequently following bad harvests and want of food.

With regard to treatment, we observe that the author, while denying that we possess any cure for fever in the strict sense, still holds that we may, at times, by shock, arrest or modify the operation of the fever poison if the attempt is made not later than 36 hours from the inception of the disease. This he has accomplished by a moderate bleeding followed by an emetic. The administration of purgatives in this stage is strongly deprecated.

An appendix is devoted to the more extended discussion of cases and controverted points.

We have read the book with pleasure and profit, and can recommend it to those who have not the time to labor through more extended works upon the subject.

CORRELATION OF THE PHYSICAL AND VITAL FORCES.—An Inaugural Address, introductory to the course on Institutes of Medicine in the Jefferson Medical College. By J. AITKEN MEIGS, M.D, Professor of the Institutes of Medicine and Medical Jurisprudence. Published by the Class. Philadelpha. .1868. 8vo., pp. 32. Pamphlet.

THIS address is a tribute to the memory of the late Dr. S. L. METCALFE, of Kentucky, a former friend and teacher of the lecturer. The grand idea of the correlation of the physical and vital forces, now being generally acknowledged by the scientific world, first publicly emanated from Dr. Metcalfe in 1833, and was subsequently published in 1843, in a work in two volumes entitled "Caloric; its Mechanical, Chemical and Vital Agencies in the Phenomena of Nature," a work, however, which was snubbed at the time by many physiologists and physicists, who are now, however, strenuously advocating the same doctrine.

The lecture shows the various steps in chemistry, experimental physiology, microscopy, etc., which gradually led to the development of this correlation theory, "a theory bolder and more comprehensive by far than that of cell-genesis, and strictly dynamical or biological in character—a theory which ambitiously seeks to resolve all the active, external conditions of life—the forces so-called—into one universal force or principle—itself, perhaps, the essence or principle of life." So earnest are the advocates of this theory in their investigations, that our author thinks we are on the eve of some great discovery in biology, as powerful a means of research as the law of Kirchoff in respect to spectral analysis.

The lecture forms an exceedingly clear and well-written resumé of the path of discovery in this direction, and deserves to be elaborated and preserved in some more permanent form.

COFFEE AS A DEODORIZER.—Coffee is spoken of in high terms by foreign journals as a deodorizer for the neutralizing of foul odors that emanate from organic bodies in a state of decay, as it can be used to advantage where other disinfecting agents would be inadmissible. In cases where rats die in the spaces between the floors of dwellings, the intolerable odor arising therefrom can be effectually removed by placing a pound or two of fresh burnt and ground coffee between the floors. For the purification of a sick room it is incomparably superior to burning rags, as it has a beneficial chemical action on the atmosphere of the room, and gives, besides, an agreeable perfume.

Reports of Societies.

EAST RIVER MEDICAL ASSOCIATION.

REGULAR MEETING, DEC. 1ST, 1868.

DR. JOHN SHRADY, President, in the Chair.

THE THERAPEUTICAL VALUE OF ELECTRICITY.

DR. SKIFF read a paper upon the above subject, in the course of which he recited the following case: He was called in July, 1866, to see a lady, who complained of severe pain in the head, and other symptoms denoting cerebral congestion. Since saline purgatives, elaterium, and reduced diet acted as palliatives, he was led to conclude that, as her sufferings extended over a period of years, there must be a *continuing* cause. Inquiring more particularly into the case, he found that the lady had menstruated at thirteen, was married a year after, and had menorrhagia during the greater part of four years. During this time miscarriages may have occurred, but if so, they took place at the second month, and so escaped attention.

The catamenia and hæmorrhage then suddenly ceased, so that for the last eight years a cephalalgia alone corresponded with the menstrual molimen. No pain in the back or abdominal region indicated uterine congestion or disease of the ovaries. Except a constipation which was neither persistent nor excessive, the patient's general health in other respects for eight years past, was uniformly good.

When Dr. Skiff began treatment, the condition of the patient was as follows: Age twenty-six, apparently healthy, and possessed of rather more than the ordinary degree of muscular development.

A vaginal examination revealed the uterus *in situ*, slightly enlarged, but not sensitive to touch; the os was so small, that a sound with bulb the size of the common probe could with difficulty be admitted. A thickening of the anterior lip of os was likewise remarked. No sensitiveness or enlargement in the region of ovaries existed. In fact, aside from the appearances indicated, the condition of these organs was normal. The os uteri having been dilated as a means of exit for the menstrual flow, compressed sponge tents, ranging upward from a very small size, being used, until the os was enlarged to an extent sufficient for the admission of the forefinger. Following this with the warm hip-bath, with emmenagogues, without any favorable result, he was forced to the conclusion that the ovaries were at fault, especially since there was no chlorosis, nor any other evidence of constitutional or local difficulty. This absence of functional activity might have been due to an atrophy, or perhaps to a previous inflammation. As electricity seemed to offer the readiest and surest road to success, the Doctor applied the positive poles of the ordinary electro-magnetic battery, by means of a sponge to the spine in the lumbar region, and the negative pole to the lower part of the abdomen over the uterus and each ovary, for about half an hour at a time, every second or third day.

Three weeks from the time of commencing the treatment, there was some evidence of uterine activity, with a slight discharge from the uterus of a slightly colored watery fluid. Application of electricity was again continued twice a week for four weeks, when there was established to all appearance the natural menstrual flow, and with but little cerebral disturbance.

The only other treatment received by the patient during this time, was entirely directed to the bowels, laxatives being used as necessity required.

Dr. Skiff kept track of this case for a year after the re-establishment of the menstrual function, and found that it was but once absent; the use of electricity being resumed on two occasions, shortly previous to the expected molimen, with the desired result. There was, it may be remarked, but a slight return of cerebral congestion, and that, too, at long intervals after the re-establishment of the catamenial function.

With reference to the mode of application of electricity in the case cited, the Doctor stated that the negative pole was applied externally, in consequence of being more convenient, but when practicable, he should introduce an instrument connected with the battery, and properly insulated, into the cavity of the uterus. He thought that the effect would be more direct and speedy.

DR. THOMS thought that electricity had not been as practically studied as its merits deserved. He had observed some remarkable results in the treatment of those classes of cases to which Dr. Skiff had referred in his paper. While alluding to the subject in a general way, he would state that he was engaged in the examination of the electrical condition of the atmosphere as bearing upon the prevalence of certain diseases, and proposed, as soon as his observations would justify the step, to present them to the profession in a tabular form.

DR. BURKE had tested electricity as a therapeutical agent, but without the success claimed for it. He may have given over his efforts just on the eve of benefit, but he certainly had imbibed the notion that its merits were somewhat overrated. An exception might be made in those cases where the disease was functional rather than organic, since facial neuralgia had been apparently relieved by its use in his hands. He had, on the other hand, ineffectually tried the battery in rheumatism, as well as in certain tumors, having been impelled so to do by the rose-colored views of those experienced in its use. Still he would not be tenacious of his opinion; he claimed the right to reverse, should future experiments be more satisfactory.

DR. JOHN SHRADY had seen electricity at least partially successful in a case of infantile paralysis, occurring in the right arm. The entire limb was implicated, but a few months' perseverance in the use of this agent restored motion to the hand and forearm. The paralysis at the start was so complete that muscular contractions could not be excited by a powerful battery in any portion of the arm.

DR. SKIFF claimed that practitioners are inclined to expect too much from all remedies, and lose faith when they should persevere. Electricity certainly could not be ranked with specifics, but it was not on that account to be denied the right of a fair trial on its own merits. If perseverance were demanded in any class of cases, it assuredly was in amenorrhœa and in suppression of the menses of long standing.

DR. WELCH had employed electricity for nine months in paralysis of the deltoid muscle, which depended on no lesion whatever.

DR. WM. NEWMAN could not give very strong testimony in favor of electricity as a remedy. He had used it for six months in infantile paralysis without effect; for another three months he exhibited strychnine in minute doses with good result. In the paralysis of adults, so far as his own experience was concerned, he would merely say that this agent had done no harm.

He discarded medicines altogether in the treatment of amenorrhœa—vaginal injections of warm water, say O iv. every night, generally sufficed in their stead.

DR. BURKE preferred hypodermic injections of strychnine (gr. $\frac{1}{60}$) once or twice a week, into the muscle at fault, to its administration by the mouth.

A POLYPUS OF THE UTERUS.

Dr. Burke exhibited a polypoid uterine tumor which, with the aid of Drs. Nichols and Place, he had removed by the ordinary curved scissors. Very little hæmorrhage followed the operation. The patient, in this case, was rendered almost anæmic, and had been given over by her friends to die on more than one occasion—in fact, had been professionally told that there was no help for her. Dr. B. did not exhibit the specimen on account of any rare interest.

Dr. Nichols In those cases where paralysis came on suddenly from mal-position in sleeping—such as occurs after a recovery from intoxication, during which the patient's arm may have been placed under the body—in these instances there is apt to be a dropping of the wrist. Here, success had nearly always followed treatment with the ordinary to-and-fro current.

He had also used it after paralysis succeeding some traumatic injury, although he had found it advisable to await the subsidence of the inflammatory symptoms. As a special stimulant to an organ in an atonic condition he found it of great value. A case in point occurred to him; it was that of a patient in whom he at first suspected paralysis of the bladder, but on finding that the urine was voided through the catheter with considerable force, he looked for the cause in some error of co-ordination in the abdominal muscles. Electricity effected a cure.

Dr. Burke contended that mere friction would effect as much as electricity in cases of paralysis from mal-position during sleep—indeed, that the recoveries were spontaneous, being attached to it but as a lesson for those who are apt to make a careless and hasty diagnosis.

Dr. O'Sullivan, as an instance of the ease of removal, related a case where a uterine polypus, which had previously been considerably manipulated, unexpectedly rolled into his hands after he had but merely touched it.

A CASE OF TRIPLETS.

Dr. McSweeny mentioned a case of triplets, complicated with partial inversion of the uterus and flooding. He gave tinct. opii in f℥j. doses every half hour, and applied the persulph. ferri with a most happy effect. The mother and children are doing well.

The Association then adjourned.

Correspondence.

MEDICAL MATTERS IN PARIS.

(FROM OUR SPECIAL CORRESPONDENT.)

GONORRHŒAL RHEUMATISM.

To the Editor of the Medical Record.

Sir—According to Follet, gonorrhœal rheumatism was described for the first time by Swediaur in a medical journal published at London in 1781. It was subsequently admitted, though with some indecision, by Hunter. The French physician above-mentioned, who fully believes in the distinct existence of this form of arthritic disease, describes it as follows:

It occurs in about 1 case in 35 of urethral gonorrœha, upon which it depends directly, as effect upon cause, and with patients who have never before suffered from rheumatism. Relapse of the urethral affection determines a similar relapse of the articular with fatal regularity. It is rare among women, probably because with them the gonorrhœal flux is more often located in the vagina than the urethra.

It declares itself at the moment that this flux is most abundant, and the latter generally diminishes with the progress of the rheumatism, but rarely ceases altogether until that has disappeared. There is, therefore, no appearance of a metastasis, properly so-called. *Début* of the arthritis is sometimes brusque—by articular pain almost always limited to one joint, especially the knee, and after that, in point of frequency, the shoulder. At other times chills, fevers, and gastric disturbance precede the arthritis, but these general symptoms are always much less pronounced than in ordinary acute rheumatism. The affection of the joints may, however, extend from the one first invaded, but the secondary inflammations are generally less intense, and often fail altogether.

Follet confirms the interesting observation already made by Hunter, that the blood presents no inflammatory clot, and in that respect resembles the blood in chronic rheumatism. Cardiac symptoms are rare, and of little gravity. The articular pains consist at first of a sensation of stiffness and numbness, but presently become excessively severe, contusive, boring, lancinating. Swediaur describes them as *frightful*. According to Velpeau, however, they are sometimes absent altogether. The swelling of the joint is considerable; the inflammation rarely mobile, retaining its original place with great tenacity, even when it has extended its influence to other articulations.

The ordinary duration of this form of rheumatism is 6 to 8 weeks. Follet admits resolution as habitual, and ankylosis as a rare termination, but other physicians consider the frequency of ankylosis as among the most characteristic symptoms of gonorrhœal rheumatism, and Follet himself notices that the synovial is more profoundly attacked than in the ordinary disease. This termination was noticeable in the case of a young girl recently a patient in M. Gosselin's wards, and that I had an opportunity of observing. She entered the hospital for a slightly pyretic rheumatism, apparently generalized, but bearing most heavily upon the left knee. The case was at first considered an ordinary one, but in a day or two the general symptoms had disappeared, and all the articulations were disengaged, except the knee, where the intensity of the inflammation continued to increase during three or four weeks. The complete defervescence, the persistence of great pain and swelling after the redness had disappeared, caused M. Gosselin to fear the formation of a white swelling (*tumeur blanche*), although neither the patient's appearance nor antecedents indicated scrofula. The limb was placed in an immobilizing wire gutter, and the inflammation constantly combated by emollients. The inflammation finally subsided about three weeks later, but the joint was perfectly ankylosed in extension. Examination then made for the first time discovered a purulent oozing from the urethra, and the patient acknowledged the previous existence of blennorrhagic accidents.

This case is the more interesting because many persons have denied the existence of blennorrhagic rheumatism in female patients. The reason above quoted from Follet, and the greater difficulty of exploration, and more frequent attempts at concealment on the part of the women, may serve to explain this difference.

M. Fournier observes that he had only been able to find four observations of such coincidence, related by authors, of which two were by Cullerier and two by Richet, but he himself has recently come across four others all at once, and describes two at length. In the first case the pain commenced at the hip, then successively

invaded the knee and the ring-finger. The wrist was somewhat swollen, but movements intact. The patient was pregnant, and examination (notwithstanding denial) discovered greenish pus at the urinary meatus. The rheumatism gradually invaded the extensor tendons of the hand, and the pain remained atrocious for three weeks. As it diminished, the gonorrhœal flux diminished also, and changed color, but the metacarpo-phalangeal articulation of the ring-finger ankylosed completely.

In the second case the rheumatism occupied exclusively the tendons of the pes anserinus at the right knee, and of the femoral biceps at the left. The articulations were healthy, but movement extremely painful. Complete absence of general symptoms and of rheumatismal antecedents. Coincidence of a pregnancy of several months, and of well-marked urethral gonorrhœa.

I will make a last quotation of an observation related by M. Peter, and which formed the starting-point for the long discussion at the Academy. The patient entered the hospital with a bilateral sciatica, and pain upon pressure on the spinal apophyses of the lumbar and cervical vertebræ. Cutaneous sensibility was deadened at the legs, and especially the feet, which were benumbed at the soles. The gait was enfeebled and limping. Finally, the circular pain around the waist helped to decide the diagnosis of marked disease of the spinal cord.

It was subsequently discovered that the patient was also suffering from his third attack of gonorrhœa, dating from three months previous. The sciatica was of ten days' duration, and the *douleur en ceinture* three.

Three-inch scarifying cups wer eapplied to the lumbar gion, and copaiba and cubebs administered internally. The pain was immediately diminished the next morning, but the feebleness remained the same. Vapor douches were ordered after the second day. The cupping was repeated three times in the course of thirteen days, and the pain and gonorrhœa diminished together, and markedly, on the fourteenth day, occurred a pain in the temporo-maxillary articulation, speedily relieved by laudanized cotton wool. On the 23d day, pain in the right knee, also relieved in the same manner. At this period the vapor douches were replaced by sulphurous, and these triumphed over the feebleness and numbness remaining in the limbs. A month from the date of admission the patient left entirely well, thus happily exchanging the original diagnosis for that of a gonorrhœal rheumatism. Many other similar cases have been placed on record, of which I will only mention that inserted in the Archives of Medicine by Féréol. A gonorrhœa of five months' standing was complicated by a monoarticular arthritis of the left wrist, and, a month later, by an œdematous phlegmon of the left submaxillary region, whose point of departure existed in the inflammation of a lymphatic ganglion at the angle of the jaw. In three days this phlegmon had extended from the cheek-bone to the clavicle, but without comprising the parotid. It presented a lardaceous, almost woody hardness, but was neither vasculated nor fluctuating. The redness was bright, the pain exquisite. The phlegmon was punctured with the trocar, giving issue to a quantity of pale fluid blood, mingled with serosity, and the operation was followed by complete cure.

The physicians who debate on the question actually diminish the proportion of coincidences between gonorrhea and rheumatism from 1 in 35 (as stated by Follet), to 1 in 62.

Upon these coincidences what opinion is to be formed?

In the first place, the necessity for any peculiar opinion may be altogether denied, on the ground that the coincidence is merely casual, a gonorrhœal patient catching rheumatism like any other when exposed to accidents of cold, etc. Against this idea are opposed the arguments: 1st, That in patients liable to this duplicate affection, relapse of either of its branches is almost invariably attended by the appearance of the other. Its comparative rarity, therefore, should not count against its reality, more than in the case of any other disease. 2d, That the rheumatism which coincides with gonorrhœa possesses peculiar characteristics, sufficing to distinguish it essentially from ordinary articular inflammation. The first argument is sufficiently stated; the second deserves some consideration.

Reference to the description given at the beginning of this article will show that the arthritis in question is that long known as mono-articular rheumatism, and recognized as notably different from the generalized disease, either acute or chronic. Its entire obstinacy to the quinine treatment is not the least interesting distinction that can be made in its character. The less frequent and intimate connection with cardiac disease is another important circumstance, though by no means always to be relied upon. I saw a case last summer at La Charité, of mono-arthritis of the left tibio-tarsal articulation, accompanied by a pericarditis that proved fatal. Still, in a general way, these considerations, and those already mentioned, really suffice to establish a specific separation of this disease from ordinary rheumatism. It now remains to be decided, whether this species should itself be divided into simple mono-articular rheumatism and that essentially connected, either as cause or effect, with gonorrhœa.

As I have already reached my limits, I defer this question to my next letter. P. C. M.

THE TREATMENT OF FRACTURE OF PATELLA.

To the Editor of the Medical Record.

Sir—Having just treated another case of fracture of the patella with pulleys and leather splints, as recommended by me in one of the previous numbers of the Record, and feeling more and more impressed with the excellence of this method, I write now, not so much for the purpose of reporting a gratifying result, as to say that it is much better to screw the side pulleys into a single board placed under the long splint, than to use separate strips as represented in the engraving, (vide Medical Record, April 15th, 1868.) About two feet long, fifteen inches wide, and half an inch thick, are the right proportions. Such a board will not only be easily kept in position, but will afford the best means of giving the pulleys the right inclination, which should generally be at an angle of about forty-five degrees from the horizontal plane, and leaning from the edge of the board towards the injured limb. The casual suggestion in my former article, that the posterior splint should be *hinged* to afford opportunity for making passive motion of the knee, I now urge as a very important feature in this plan of treatment. The case to which I have alluded was in the practice of Dr. Thomas P. Norris, of this city, who called me in consultation. Patient—a strong, middle-aged man; fracture transverse, just below the middle of the bone; the result of direct violence and muscular effort combined; separation of the fragments, nearly one inch. The patient was stepping from the front platform of a horse-car which was still in motion, when he was thrown heavily forward upon one knee. The contusion caused so much swelling and tenderness,

that no dressings could be borne for several days. Evaporating lotion was ordered. On the fifth day, leather splints and roller applied. On the seventh day, weights attached—about one pound each. Result, after six weeks, apparently osseous union, with no appreciable separation, and with less stiffness of the knee than is usually experienced.

Yours very truly,

J. H. HOBART BURGE.

165 CLINTON ST., BROOKLYN, January 24th, 1869.

Medical Items and News.

THE ANNUAL COMMENCEMENT OF THE MEDICAL COLLEGES.—The College of Physicians and Surgeons celebrated its sixty-second annual commencement at Steinway Hall on the first instant. The proceedings were opened with prayer by the Rev. Sullivan H. Weston, and the degree of M.D. conferred upon 98 candidates.

The prizes were awarded by Professors Clark and Dalton as follows:—

Harsen Prizes.—First prize, $150, J. Francis Chapman; second, $75, Eugene B. Murtha; third, $25, Frederick C. Curtis.

Faculty Prizes.—First prize, for Thesis "On the Poisonous Species of Rhus (ivy)," to Eugene B. Murtha; second, for Thesis "On Carbolic Acid and its Derivatives," to John J. Reed.

The valedictory was delivered by James C. Lindsley, of the graduating class, who acquitted himself in a manner acceptable to his audience. Mr. Joseph H. Choate followed with an address, in which the merits of the medical faculty and the fraternity of the law were contrasted in a very humorous way, the palpable hits at the foibles of each profession eliciting hearty laughter from the audience and the representatives of the two professions present. The exercises closed by benediction.

The University Medical College held its commencement March 2d in the chapel of the institution on Washington Square. The attendance, as in the case of the preceding occasion, was large. Shortly after eight o'clock Chancellor Ferris took the chair, and, having read some Scriptural passages, conferred the degree of Doctor in Medicine on 82 successful candidates, besides granting 12 Certificates of Honor. The Prizes were then awarded as follows:

Mott Prize Medal.—Silver medal to Wm. P. Morrissey, of N. B.; bronze medal to T. J. Townsend, of Ky.

Loomis Prizes.—First, O. G. Dibble, N. Y.; second, R. P. Townsend, Ky.

Budd Prize.—William A. Guernsey, Conn.

Jacobi Prize.—V. Hevard. N. Y.

Roosa Prize.—T. C. Giroux, N. Y.

Weisse Prize.—Mark H. Williams, N. Y.

Professor Thomson delivered the valedictory address, in which he ridiculed the idea that nature was the only healer of disease, and contended that no true physician could entertain such a heresy without moral paralysis. He cited several instances where educated skill only could save the patient, but who, if left to nature only, must necessarily perish. He referred to the vast improvements which within the past thirty years had taken place in medical science, and clearly demonstrated the inestimable benefits which those improvements had spread among the community. In conclusion he alluded to the noble calling to which the graduates had just been admitted, and observed that he who cared not to be a physician, after he had studied for it, was not fit to be anything. The professor was listened to with marked attention, and at the termination of his eloquent, well-pointed, and feeling address was warmly applauded.

Chancellor Ferris then gave the benediction, which brought the proceedings to a close.

The seventh annual commencement of the Bellevue Hospital Medical College was celebrated at the Academy of Music, on March 23d ult. The edifice was well filled with members and friends, including many elegantly dressed ladies. The trustees of the College occupied the stage, together with many others eminent in the profession, in accordance with the custom adopted by the three schools of the city. The exercises embraced some choice selections of operatic music, which were performed by a grand orchestra under the direction of Mr. Carl Bergmann. After prayer by the Rev. Alfred B. Beach, D.D., the graduates rose in their seats, and remained standing until President Isaac E. Taylor had concluded the conferring of degrees. The diplomas were individually distributed by Dr. Austin Flint. While they were being bestowed, a large number of bouquets were showered on the recipients from the hands of fair admirers. An address was made to the graduates by the Rev. Alexander E. Thompson, D.D., who fervently congratulated them on their success, and encouraged them, in eloquent words, to engage in their noble avocation with stout hearts and honest aspirations. The address was listened to with marked attention, and was frequently interrupted with applause.

Walter S. Thorne, M.D., of the graduating class, delivered the valedictory, and the exercises closed with the benediction. The graduating class numbered 124.

THE COLLEGE OF PHYSICIANS AND SURGEONS ALUMNI ASSOCIATION held its Eleventh Annual Reunion at the College, on the evening of the 2d inst. Dr. Joseph Mauran, of Providence, R. I., delivered the Presidential Address, in which he urged upon the attention of the audience, the necessity of a more minute and uniform system of vital registration.

On motion, the thanks of the Association were tendered the President, and a copy of the address requested for publication.

Dr. Wm. C. Roberts, from the Committee on Prize Essays, reported in substance that but one thesis was offered in competition, which was not deemed entitled to the prize, on account of the lack of sufficient literary value. They reported that the sum of $3,005 had been raised, by the addition of $1,505 to the original gift of $1,500 by Dr. Edward Delafield, and that the former sum had been contributed by certain members of the Association. In regard to the management and disposition of the fund, the committee proposed that it be placed under the control of three trustees, to consist of the President and Treasurer of the Alumni Association, and the President of the College; that the fund be securely invested, and that the interest, or at least $200 of the same, be offered as an annual prize for the best medical or surgical essay presented by an alumnus of the College; that to enlarge the fund, the Prize Committee be instructed to call upon all graduates for contributions, with the view of offering prizes of several degrees, and that the annually appointed Prize Committee publish the conditions of the prize, as well as decide upon the merits of the competing theses.

Report accepted, and suggestions on motion adopted.

The following officers were duly elected:—Dr. Wm. C. Roberts, *President;* Dr. D. Tilden Brown, *Vice-President;* Dr. John Shrady, *Secretary;* Dr. A. Norton

Brockway, *Assistant Secretary;* Dr. Wm. B. Bibbins, *Treasurer*, together with thirty-three councillors.

Drs. Ellsworth Eliot, Wm. H. Draper, and A. B. Ball, were elected the *Committee on Prize Essays.*

Dr. Wm. C. Roberts offered the following resolution, which was unanimously adopted.

Resolved, That the Councillors of the Alumni Association, or as many of them as can conveniently assemble for the purpose, shall present at each meeting a list of candidates for the various offices and committees to be submitted to the Association; that they also make preparations for the annual meeting, and attend to any business not otherwise provided for.

The deaths of the following Alumni, members of the classes as below designated, were reported as having occurred since last meeting:

Hudson Kinsley (1823); Robert H. Maclay (1824); Henry G. Dunnel and Geo. E. Palmer (1826); Theodore F. King (1827); Jonathan E. Lee (1845); Dewitt C. Enos (1846); Hampton Harriot (1848); Jesse F. Merritt (1852); Wm. H. Van Mater (1854); John P. Benkard (1861); John C. Mead and Joseph S. Winston (1866).

The Prize Committee of the Stephens Triennial Prize announced the postponement of the first award until the College Commencement in March, 1870.

Two additional subjects were proposed for the competing theses.

(1) The Use of the Thermometer in the study of disease and the advantages to be derived therefrom, and (2) The Sphymograph; its Physiological and Pathological Indications.

After a vote of thanks to Dr. R. T. Underhill, of Croton Point, N. Y., for a donation of wine, the Association adjourned to a bountiful supper, provided by the College Faculty at the Ashland House, where many recalled, in the presence of friends from afar, the happy days of "auld lang syne."

THE ALUMNI ASSOCIATION OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK held its annual meeting, February 23, 1869, in the large chapel of the University on Washington Square. Dr. Leaming presided, and an opening prayer was offered by Dr. Ferris, the Chancellor of the University. Dr. H. S. Hewit was then called on to read the paper of the evening. In commencing the essayist referred to the social pleasures which clustered around Alma Mater, and the recollections which could but be indulged in upon such an occasion. He then proceeded to speak of those whose memories would ever be fresh in the minds of the alumni, referring by name to many distinguished persons who had been connected with the University in times gone by. The connection of the medical science with the intellectual classes of this country and age was next discussed. The essayist was painfully conscious that sufficient attention was not paid to legitimate medicine, and that it did not take that place in the attention of the cultivated classes which it fairly demanded or deserved. Medicine in its broad and comprehensive meaning was a science in which truth and philosophy were to be found, and which was a handmaid to religion. Medicine as a science rested on philosophy. The tendency of metaphysical science was to elevate the spiritual far above the material, and that of physical science to degrade the spiritual below the material. Medicine suffered on this account, and was not allowed its proper place by science, philosophy, literature or the press. The essayist then proceeded to point out some of the errors that had crept in among the students of medicine, and inculcated the necessity of culture to combine and classify the results of observation and experimentation.

After a vote of thanks to the orator of the evening and a request of a copy of the address for publication, the Association adjourned.

AMERICAN MEDICAL ASSOCIATION.—The twentieth annual session will be held in New Orleans, La., May 4, 1869, at 11 A.M.

The following Committees are expected to report:—On Diseases of the Cornea, Dr. Jos. S. Hildreth, Illinois, Chairman; on Cultivation of the Cinchona Tree, Dr. Lemuel J. Deal, Pennsylvania, Chairman; on Excision of Joints for Injuries, Dr. J. B. Reed, Georgia, Chairman; on Alcohol and its Relations to Medicine, Dr. John Bell, Pennsylvania, Chairman; on the Cryptogamic Origin of Disease, with special reference to recent microscopic investigations on that subject, Dr. Edward Curtis, U. S. A., Chairman; on Operations for Harelip, Dr. A. Hammer, Missouri, Chairman; on Clinical Thermometry in Diphtheria, Dr. Jos. G. Richardson, New York, Chairman; on Prophylactics in Zymotic Diseases, Dr. Nelson L. North, New York, Chairman; on Inebriate Asylums, Dr. C. H. Nichols, D. C., Chairman; on the Influence of the Pneumogastric Nerve on Spasmodic and Rhythmical Movements of the Lungs, Dr. Thomas Antisell, D. C., Chairman; to Examine into the Present Plan of Organization and Management of the United States Marine Hospitals, Dr. D. W. Bliss, D. C., Chairman; on the Utilization of Sewerage, Dr. Stephen Smith, New York, Chairman; on the Influence of Quarantine in Preventing the Introduction of Disease into the ports of the United States, Dr. Elisha Harris, New York, Chairman; on Nurse Training Institutions, Dr. Samuel D. Gross, Pennsylvania, Chairman; on Commissioners to aid in Trials involving Scientific Testimony, Dr. John Ordronaux, New York, Chairman; on Annual Medical Register, Dr. John H. Packard, Pennsylvania, Chairman; on Devising a Plan for the Relief of Widows and Orphans of Medical Men, Dr. John H. Griscom, New York, Chairman; on Veterinary Colleges, Dr. Thomas Antisell, D. C., Chairman; on Specialties in Medicine, and the Propriety of Specialists Advertising, Dr. E. Lloyd Howard, Maryland, Chairman; on Library of American Medical Works, Dr. J. M. Toner, D. C., Chairman; on Vaccination, Dr. Henry A. Martin, Massachusetts, Chairman; on the Decomposition of Urea in Uræmic Poisoning, Dr. H. R. Noel, Maryland, Chairman; on the Best Method of Treatment for the different forms of Cleft Palate, Dr. J. R. Whitehead, New York, Chairman; on Rank of Medical Men in the Navy, Dr. N. S. Davis, Illinois, Chairman; on Medical Ethics, Dr. D. Francis Condie, Pennsylvania, Chairman; on American Medical Necrology, Dr. C. C. Cox, Maryland, Chairman; on Medical Education, Dr. J. C. Reeve, Ohio, Chairman; on Medical Literature, Dr. E. Warren, Maryland, Chairman; on Prize Essays, Dr. S. M. Bemiss, Louisiana, Chairman; on the Climatology and Epidemics of Maine, Dr. J. C. Weston; New Hampshire, Dr. P. A. Stackpole; Vermont, Dr. Henry Janes; Massachusetts, Dr. H. I. Bowditch; Rhode Island, Dr. C. W. Parsons; Connecticut, Dr. E. K. Hunt; New York, Dr. W. F. Thoms; New Jersey, Dr. Ezra M. Hunt; Pennsylvania, Dr. D. F. Condie; Maryland, Dr. O. S. Mahon; Georgia, Dr. Juriah Harriss; Missouri, Dr. Geo. Engelman; Alabama, Dr. R. F. Michel; Texas, Dr. T. J. Heard; Illinois, Dr. R. C. Hamil; Indiana, Dr. J. F. Hibberd; District of Columbia, Dr. T. Antisell; Iowa, Dr. J. C. Hughes; Michigan, Dr. Abm. Sager; Ohio, Dr. T. L. Neal; California, Dr. F. W. Hatch; Tennessee, Dr. B. W. Avent; West Vir-

ginia, Dr. E. A. Hildreth; Minnesota, Dr. Samuel Willey; Virginia, Dr. W. O. Owen; Delaware, Dr. L. B. Bush; Arkansas, Dr. G. W. Lawrence; Mississippi, Dr. —— Compton; Louisiana, Dr. L. T. Pimm.

Secretaries of all medical organizations are requested to forward lists of their Delegates as soon as elected, to the Permanent Secretary.

Any respectable physician who may desire to attend, but cannot do so as a delegate, may be made a *member by invitation*, upon the recommendation of the Committee of Arrangements.

W. B. ATKINSON, Permanent Secretary.

THE ANNUAL SUPPER OF THE BELLEVUE HOSP. MED. COLL. GRADUATING CLASS was given by the Faculty, Monday evening, March 1st, at the rooms of the Mott Memorial Library. The occasion was a happy one. At ten the word was given to attack the well-loaded table, and the rapidity with which the viands disappeared was suggestive of preparation for the occasion. Of the Faculty, Profs. Taylor, Wood, Hamilton, Flint Sr., Flint Jr., Sayre, McCready and Hammond were present. Both Faculty and students seemed determined to make the occasion one of enjoyment, meeting with signal success.

CLARK—Died at Montclair, N. J., on Saturday, March 6, J. Henry Clark, M. D., late President of the Essex County Medical Society, in the 56th year of his age.

Funeral services were held in the Montclair Presbyterian Church, Tuesday, March 9, at 1 o'clock P.M. Members of the Essex County Medical Society and of the profession generally, and friends of the family were in attendance.

A SINGULAR DISEASE.—Before the London Obstetrical Society, Mr. Heckford recently exhibited the generative organs of a child aged ten months, in which the vagina was enormously dilated, and occupied by villous growths of a medullary character. The rectum, bladder, and urethra were normal. The os uteri opened into the upper wall of the vaginal sac. The disease had lasted for about four months, and the child died shortly after its admission into the East London Children's Hospital.

THE JERSEY CITY CHARITY HOSPITAL.—The Common Council of Jersey City have appointed the following medical practitioners of that city as physicians and surgeons of the new Jersey City Charity Hospital: Physicians—Drs. T. F. Norris, J. H. Vondy, A. A. Lutkins, M. A. Miller. Surgeons—J. W. Hunt, D. L. Reeves, T. R. Varick, B. A. Watson.

A NOVEL PRESCRIPTION FOR THE AGUE.—Sir Kenelm Digby, of England, wrote to Gov. Winthrop, the second, of Massachusetts, in the 18th century, and recommended the following cure for the ague: "Pare the patient's nails; put the parings in a little bag round the neck of a live eel, and put him in a tub of water; the eel will die, and the patient will recover."

THE FIRST LECTURER ON ANATOMY IN THIS COUNTRY.—Soon after the settlement of Massachusetts, Giles Firman arrived from England, and his lectures on anatomy were the first scientific teachings of the New World. His practice was very small, or unremunerative, for he wrote to Gov. Winthrop: "I am strongly set upon to study divinitie; my studyes else must be lost, for physick is but a meene helpe."

THE FIRST MEDICAL WORK IN THIS COUNTRY.—Thomas Thacher, the first minister of the "Old South Church," Boston, Mass., was the author of the first medical treatise printed in this country.

BROWN-SEQUARD.—Dr. Brown-Séquard has accepted a chair in the Paris Faculty of Medicine.

THE FIRST QUACK IN AMERICA.—Perhaps the first mention of a quack is found in the Massachusetts court records for 1631, which show that one Nicholas Knapp was sentenced to be fined and whipped "for taking upon him to cure the scurvy by a water of noe worth or value, which he sold att a very deare rate."

THE FIRST INOCULATION FOR SMALL-POX.—Cotton Mather, "the distinguished divine," introduced inoculation for small-pox in the 18th century. He accidentally came upon an account of inoculation as practised in Turkey, and bored physicians with the scheme for a long time unsuccessfully. On the 27th day of June, 1721, Dr. Labdiel Boylton inoculated his only son for small-pox.

THE INTRODUCTION OF MERCURIALS.—In 1735 occurred the great epidemic known as the "throat-distemper," which has been supposed not unlike our diphtheria, and from this time dates the extensive use of mercurials, which were said to have been specially useful in its treatment.

THE FIRST PERSONS VACCINATED IN AMERICA.—In July, 1800, Dr. Benjamin Waterhouse, of Cambridge, Mass., submitted four of his children to the new process, and they were the first persons vaccinated.

A NEW effect of the administration of chloroform was pointed out by M. Hurteloup, at the last meeting of the Chirurgical Society of Paris. A woman who had been chloroformized was seized, on awaking, by a fit of sneezing, which lasted continuously during a quarter of an hour.

MADAME KASCHEWAROW.—The Medico-Chirurgical Academy at St. Petersburg conferred, at its annual conference a few weeks since, the degree of M.D. upon Madame Kaschewarow, the first female candidate for this honor who had presented herself before them.

THE FIRST PHYSICIAN IN MASSACHUSETTS.—Dr. Samuel Fuller, the physician of the Mayflower, was the first disciple of Galen mentioned in the history of Massachusetts.

DR. PAGET has been re-elected to represent the University of Cambridge in the General Medical Council, for a period of five years.

DR. ACLAND has been re-elected to represent the University of Oxford, for an additional period of five years, in the General Medical Council.

HISTORY OF VACCINATION.—The *Pall Mall Gazette* states that the Russian Government has offered a prize of 3,000 roubles (£400) for the best history of vaccination, by way of celebrating the hundredth anniversary of the introduction of that practice into Russia by the Empress Catharine II. The prize is open to all European competitors, and the history may be written in any modern European language.

A WIDE CIRCUIT.—One of the reporters of the *Glasgow Herald*, in a visit to Malin Head, the northernmost point of Ireland, has fallen in with a medical man whose practice embraces an area of fifty-seven square miles, having a population of 10,000: "Every family in that vast tract," says the writer, "having a claim upon his services, one was quite prepared to hear that often for forty-eight hours together he could not find time either to eat or sleep."

Original Communications.

REMARKS ON THE CONTAGIOUSNESS OF ENTERIC FEVER,

MADE BEFORE THE WHEELING AND OHIO COUNTY MEDICAL SOCIETY.

By JAMES E. REEVES, M.D.,

WHEELING, WEST VA.

In this school which we have jointly inaugurated, we are all both *pupils* and *teachers*. Our lessons are studied from different stand-points in nature's harmonious, but to us most difficult, field; we see the same object very differently through different media, and we come here to compare *notes* and *reflections*. That this will prove a profitable exercise, and decidedly in the interest of our patients, there can be no doubt. I know we shall learn much from each other, and go out from these meetings better qualified to discharge the responsible duties which it is our constant business to assume.

Considering the magnitude of our self-imposed tasks, why indeed should we not, as often as possible, reason with each other, and dwell together in unity in the search after truth? And what more important subject could at present engage our attention and study than that of enteric fever? It is *the disease* of this country, and is now prevailing in all directions with unusual severity—especially has it been rife in Wheeling and vicinity since the coming of the last fall season.

For almost twenty years I have tried to study enteric fever—or typhoid fever, as it has been called in fixing the question for discussion—in all its parts, and I think I have learned how to recognize it at the bedside, no matter how insidious the method of approach, or varied the form of its development. Near the beginning of my practice I was rushed into the midst of the most fearful visitation of enteric fever it has ever been my fortune to witness, and I know nothing in medical history, concerning its prevalence and fatality, in this country at least, to exceed the wide-spread scourge to which I allude. Indeed, in many lamentable particulars, it was not unlike some of the fever epidemics which have prevailed in Ireland, and so graphically described by that never-to-be-forgotten Dublin professor, Dr. Graves.

In *thirteen* of the mountain counties of West Virginia (then Virginia), the most salubrious in the State, the disease came unheralded, and pursued its fearful march without respect to age, sex, or condition. Neither did it regard locality; for there was scarcely a neighborhood in all that wide expanse of elevated country which was not, sooner or later, visited and scourged to the death of some of its victims. The towns and villages did not, as a rule, suffer more severely than the delightfully situated country settlements, including farm-houses of all descriptions, and built upon the hill-tops, in the valleys, on the mountain side, along creeks and rivers, and far off from the pernicious influences of decaying vegetable and animal matter, marshy lands, stagnant pools and drains, and filthy sewers.

So varied was the character of the disease in different districts—in some so mild or slow and tedious, in others so malignant and rapidly fatal—that it received very different names to characterize its course and gravity—typhus fever, typhoid fever, slow nervous fever, brain fever, and most alarming of all, *black tongue!* I need scarcely tell you that the cases of the latter description were generally fatal, and created the greatest alarm. Besides, the evidences of the contagious character of the disease were frequent and unmistakable, and this fact gave intensity to the general consternation. I remember some poor families in which it was impossible to secure nurses for the sick, who, on account of the dread of contagion, were almost entirely abandoned by their healthy neighbors; and when death came, as it did with great frequency, even in the midst, seemingly, of the most favorable hygienic surroundings, the immediate friends, for want of assistance, were compelled to make ready the bodies of their own dead for the grave! And to-day, notwithstanding near *twenty years* have since passed, that terrible and widespread reign of fever is not forgotten by the hundreds whom it caused to mourn the loss of loved ones who perished by its ravages.

By that most impressive experience I learned to entertain certain opinions concerning the specific character and causes of enteric fever—opinions which, though I have grown much older, and I trust wiser, since they were received, have been strengthened and confirmed by a subsequent patient study of the disease in all its forms. To make sure, however, that I had observed correctly—that I had properly interpreted nature through my cases—I determined, several years since, to interrogate the profession in every county of the State—Wheeling and Ohio counties not excepted, as a valuable letter from my friend Dr. Hildreth will show—concerning the frequency of enteric fever, its origin, march, and termination; and the data thus obtained, in the main, in nowise differed from the facts which I myself had observed, and have since taught.*

That enteric fever is generally a contagious disease, sometimes very *feebly*, at other times *actively* so, is a truth of which I am as well convinced as of the contagion of measles, scarlet fever, or small-pox; and the reasons for the *faith* which I here so boldly declare, have been cautiously accumulated in country and village practice—the most favorable, if not the only reliable, fields for the discovery of the *truth* concerning this quality of disease. I have said *generally contagious*, because there can be no doubt that enteric fever is frequently developed *de novo*—in other words, that it occurs independently of antecedent cases; but after such spontaneous production, it may then become feebly or actively contagious, according to the predisposing causes, and the fitness of the recipient for the action of the poison. But this is, confessedly, a most difficult subject, look at it, study it as we may. That many diseases do thus spontaneously occur, which afterwards become more or less actively contagious, is, I think, a well-ascertained fact, notwithstanding our ignorance concerning the causes of their origin, and the quality of the adventitious contagious principle which sometimes so surely duplicates itself in the bodies of those who come within the radius of its influence.

In syphilis, gonorrhœa, rabies, glanders, the *itch*, and some other forms of skin disease, we have examples of a positive poisonous matter or contagion; and the manner in which *like produces like* is simple and cannot be mistaken. Here the morbific cause, agent, or parasite, is taken from the body of the sick and implanted in that of the healthy person; and the result of each specific agent or poison is constantly and precisely the same. Other diseases have a twofold mode of propagation—that is, both by *contact* and *proximity*. Small-

* See the author's *Practical Treatise on Enteric Fever, its Diagnosis and Treatment*. Philadelphia, 1859.

pox—the surest of all contagions—is one of these, and is communicable by atmospheric dispersion of the *materies morbi*. I will not assert that small-pox ever occurs *de novo;* but what of gonorrhœa, glanders, rabies, and some forms of ophthalmia, which are not only contagious by contact, but may be contracted by a simple visit to a ward and merely looking at the patients suffering from the disease—every precaution being taken to avoid contact with the diseased, or with the articles of clothing and furniture worn and used by them? Who will say, in face of the facts on record concerning the origin and propagation of these diseases, that they do not sometimes occur quite independently of the influence of antecedent cases? Is it not a matter of common observation, that small-pox, scarlet fever, measles, chicken-pox, diphtheria, hooping-cough, mumps, erysipelas, dysentery, cerebro-spinal meningitis, the so-called "spotted fever," enteric fever, puerperal fever, cholera, and several other diseases, each and all of them strangely disappear from observation in a given district or country, and then, after several years' absence, come again with terrible fatality, even more mysteriously than they disappeared, and cast the shadow of mourning over an entire neighborhood, county, state, or nation? Our experience has offered several such dreadful examples. That some of these diseases occur *de novo* must be admitted, because of their frequent appearance in isolated rural districts, when, after the strictest search, it has been found utterly impossible to trace the slightest semblance of antecedent cases and connection.

The contagious quality of scarlet fever can scarcely be questioned, yet its frequent spontaneous origin, I think, is not less doubtful. In proof of the doctrine of its occasional spontaneous occurrence and subsequent spread by contagion, I could offer several unmistakable examples, but shall content myself with but a single reference:

A boy, æt. four years, whose parents resided in an out-of-the-way neighborhood in Barbour county, was attacked with scarlet fever, and in five days thereafter died. As far as could be ascertained, after the most diligent inquiry, there had been no cases of scarlet fever in the county for more than two years, and very surely this child had not been in communication with any one outside of the family, which consisted of the father, mother, himself, and a sister nine years of age; neither had there been visitors in the family. In two days after the death of the boy, the sister was attacked, and died after six days' illness. The disease did not show itself outside of this family for eighteen months, when it unaccountably appeared in a distant neighborhood, and became generally prevalent in the county.

Six months after the death of these children, the mother made a visit to a poor sister living thirty miles distant, in Lewis county. Thinking that the *laid-aside* articles of clothing which her lost children had worn up to the day when each was attacked with scarlet fever, might be of service in her sister's large and but scantily provided-for family, she took them with her, and soon after her arrival the little garments were exhibited and the ownership determined, with these lamentable results: Scarlet fever appeared in this family, and four out of six children perished from the disease within the next two weeks from the date of the arrival and presentation of the clothing, and from this centre the disease spread in several directions. At the date of this sister's visit in Lewis county, there was not a case of scarlet fever in the "settlement;" neither had this disease been met with in that county for many months prior to her arrival.

Far more numerous, however, are the examples of the spontaneous generation of enteric fever; equally positive have been the evidences of its contagiousness, and spread by *deportation*. But which are the most efficient of the supposed predisposing and exciting causes, what the precise nature of the atmospheric causatives and tenure dependencies, which are constantly operative in the production of the disease; in other words, whether the influence of season, its temperature and moisture—the changes in the electrical condition of the atmosphere—the quantity, either diminished or in excess, of atmospheric ozone—the presence of myriads of minute substances endowed with vegetable and with animal life which, from unknown causes, are developed in the atmosphere we breathe, and are thus brought in contact with the lungs and mucous surfaces; or whether poverty with its scarcity of food and clothing; fatigue; the depressing emotions of fear, grief, and anxiety; defective sewerage, contaminated drinking water, open cesspools, ill-ventilated dwellings—ochlesis—"civic miasm," in a word: which of these, or how many of them combined, are the essential producing agents of enteric fever, I am quite unable to tell; but I do know certainly that the disease breaks out from time to time in the same or in different localities without assignable cause, and in the midst of very different surroundings. Ill-ventilation, over-crowding, foul air, accumulated filth, the opening of sewers, cess-pools, and the gaseous products of animal and vegetable decomposition, no doubt have much influence; but in the language of Dr. Guy, are these not more often the *nurse* than the *parent?* If these causes—any of them, or several of them acting together—afforded the specific poison of enteric fever, then there are certain localities in Wheeling, and in every other city in the land, not to mention many country places, where the disease should constantly be found. How many localities in our midst which, month after month, and year after year, are reeking and seething with all manner of filth? What is Wheeling Creek for the distance of a mile above its junction with the Ohio, but an immense open cess-pool? Go into the neighborhood of the slaughter-houses, the soap and tallow-chandler establishments situated near the banks of this sluggish stream, and from which issue sickening gases, from the decomposition of animal matter, of such concentrated strength that many citizens whose residences are afar off, dread a wind from that direction, and inquire if enteric fever is very common among those who breathe constantly the horribly odoriferous atmosphere? In the same direction, look at the condition of the Hempfield Railroad track in the immediate vicinity of the *East Wheeling Glass Works*, which, for more than a hundred yards, is worse than a dozen open filthy privies, because of the continual deposit of human excreta between the cross-ties—and is enteric fever, or any other form of disease, more common in these localities, among the employés of these establishments, than in the best and most delightfully-situated neighborhoods of the city, among the families of merchants and thrifty tradesmen? *No.* Do the city scavengers and those who *walk the sewers* suffer more frequently from the disease than other people? *No.* My friend, Dr. Richard Blum, who was *Health Officer* of Wheeling two years ago, has informed me that the men employed by him to cleanse the streets and sewers grew "fat and sleek" from their filthy labor.

The whole truth is this, and I think you will all agree with me, the dens of filth and sources of the foulest emanations in our midst, as a rule, are not the usual *habitats* of enteric fever, which would certainly be the case were the influences just mentioned the *parent* of its specific poison. I do not mean to say that

these filthy localities are exempt from the disease—very far from it; but I do say that it quite as frequently attacks those in easy life—the *better classes*, if you please; and exhibits a marked preference for the young, and those who live upon high or elevated grounds, and for the fall and winter seasons of the year. Exactly as scarlatina, diphtheria, measles, chicken-pox, whooping-cough, and other epidemic diseases come around in uncertain cycles, and break out spontaneously, *i. e.* without a trace of connection with antecedent cases, in cities, towns, villages, schools, work-houses, and country places, so does enteric fever often originate without the slightest evidence or suspicion of contagion; but when fully developed, it may then be communicated from person to person, and if circumstances favor its propagation, a wide-spread visitation ensue.

Indeed, in so many unvarying particulars does enteric fever resemble the eruptive fevers, so closely does it conform to the laws which govern their mode of access, march and termination, that it should, as has been remarked by several valuable authorities, be classed among the *exanthemata*. The frequency and uniformity of the eruption is as marked as that of scarlet fever; if the diarrhœa is profuse and persistent, the eruption is sparse and soon fades; the bronchial irritation is as constant as that of measles; and when the disease is once fully developed, it runs a given course, the specific blood-poison displaying itself according to the idiosyncrasy of the patient and the general tendency of the prevailing *medical constitution*, and cannot be broken up by any method of treatment.

There is also a similarity of attraction or elective affinity of the morbid poison for certain eliminating surfaces, the choice of which as distinctively marks the specific or independent character of the disease. In scarlet fever the tonsils are the normal excreting surfaces, and a well-known form of *angina* results; in diphtheria, there is another and certainly very different blood-poison which has a like affinity for the same parts of the throat; but the nature of the resulting morbid action about the fauces in diphtheria is wholly unlike that which occurs in scarlet fever; and so far from being *antagonistic* poisons, a protective one against the other, they may co-exist—a fact of which I have witnessed several unmistakable examples. In like manner, the specific poison of enteric fever has an elective affinity for the surface of the small intestine, and for the mesenteric and other glands connected with the bowels; and the anatomical lesions which are induced by the process of elimination in these, its normal excreting surfaces, are so constantly and precisely the same, that they stamp enteric fever as specifically distinct from any other febrile or local inflammatory affection, as scarlatina is different from diphtheria, or measles from small-pox.

Again, the causative poison of enteric fever is antagonistic of no other blood-poison; neither is it *protective* against any but itself; and the immunity from future attacks which it confers is as reliable as the safety from a second attack of scarlet fever, measles, or small-pox. To this fact my attention has been particularly directed, and in all my experience I never knew a patient to have the disease a second time. There is also the same increased activity of the contagious principle during the period of convalescence from the disease which is observed during the decline of measles, scarlet fever, and small-pox; in support of which fact I could give, if it were necessary, several interesting cases.

Finally, how stands the *record*, both in this country and in Europe, on the subject of the contagiousness of enteric fever? Without naming authorities, I think I hazard nothing in saying that the balance of proof is in favor of contagion; not that the disease is invariably thus produced, but after development from unknown causes—the so-called *predisposing* and *exciting*—it may, and very frequently does, propagate itself by contagion. As I have before remarked, the question of the *generatio de novo* of diseases, which may afterwards propagate themselves by contagion, is a most difficult and perplexing one; and it is at present largely enjoying the attention of the wisest minds in the profession.

Failing to account satisfactorily to himself for the production of the disease from any other source than *contagion*, Dr. Watson, one of the most trustworthy of living authorities on all subjects connected with practical medicine, thinks "there is constantly kept up in every large community a sufficient stock of contagious matter to act as a sort of *leaven* whenever circumstances favorable to the development of the disease as an epidemic may chance to arise."

It should be remembered, however, that "Truth is in things and not in him who observes them." In medicine there are many truths which are not demonstrable, yet they are *truths* nevertheless. If it cannot be explained how some persons escape the virus of small-pox—even cannot be made to receive it by inoculation; how vaccination may fail to-day and prove successful two weeks hence; what the nature of the specific poisons of scarlet fever and diphtheria, and why their affinity for the tonsils; why the poison of mumps should have an affinity for the *parotid gland*; what the nature of the poison of enteric fever, that it should have an affinity for the elliptical plates of the ileum; how these poisons respectively enter the blood and by their *catalytic* action purge from it their own future permissibility—I say, if all these things cannot be explained, which are *truths* in spite of the mystery which envelops them, is it less strange that we are unable to account for the spontaneous origin of disease, and its subsequent spread by contagion—examples of which are constantly occurring?

In conclusion: There is another subject germane to the one now under consideration, which is of not less importance; and I call your attention to it, hoping that you will give it the consideration it justly deserves. I allude to the *Differential Diagnosis of Enteric Fever, acute Phthisis and chronic Pneumonia*. Since the publication of the views of Reinhardt, Virchow and Neimeyer, on the subject of pulmonary phthisis, the differential diagnosis of those affections can be more definitely studied, and the lines separating them, one from the other, confidently drawn. That frequent mistakes have been made in the diagnosis of these diseases, I have very little doubt; and I am confident that in numerous instances persons have died of *acute phthisis*, of whom it was said they died of *enteric fever*, and *vice versa*; and that many of the vaunted recoveries from "*consumption*" have, indeed, been recoveries from *chronic pneumonia*. "Merely this and nothing more."

A Ridiculous Idea.—A correspondent suggests that the source of animal heat is referable to the friction of the blood passing through the minutest ramifications of the arterial and capillary systems. He thinks it cannot be due to chemical changes taking place in the digestion and assimilation of food, because an infant is quite warm when born. This is not a new idea, and we fear we must add, not a true one. We venture to think that Nature is not to be outdone by man, who greases his machinery to diminish friction. The Esquimaux eating his candle at both ends, to keep himself warm, little suspects he is doing the reverse by preventing the friction on which his animal heat depends!—*Lancet*.

Original Lectures.

LISTER'S ANTISEPTIC TREATMENT IN SURGERY:

REMARKS MADE BEFORE THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK, MARCH 1, 1869.

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MR. PRESIDENT AND FELLOW-MEMBERS:—The object of these remarks is to bring before you the salient points of Mr. Joseph Lister's antiseptic system of treatment, its modus medendi, the preparations used, the manipulations required, and the accumulated testimony in its favor. If I succeed in imbuing you with something of the conviction which forced itself upon me while with Mr. Lister last summer, in his surgical wards at the Glasgow Royal Infirmary, and thus induce you to test carbolic acid, with every possible precaution as to details of manipulation and dressings, I shall have fulfilled a duty to my colleagues and done a service to their patients, which, in their fruits, will advance the growing conservatism of American surgery.

It is a trite saying that "Coming events cast their shadows before;" this has been repeatedly verified in the history of the healing art. All great advances in medicine have been heralded by a series of facts, which have at last culminated in the evolution of a great scientific truth, or the perfection of some method of practice, by which our ability to appreciate morbid conditions and alleviate suffering has been increased, and thus the mortality of the species has, in the majority of these progressive steps, been directly diminished. To mention the names of Harvey, Ambroise Paré, John Hunter, Jenner, is sufficient to substantiate my statement, as the histories of their discoveries will attest.

The discoveries which had been made of the antiseptic properties of certain preparations of coal-tar, sulphurous acid, etc., together with the appreciation of the true cause of surgical inflammation, paved the way for Mr. Lister's antiseptic system of treatment. Since 1859, articles have appeared from time to time in the leading European medical journals, upon the antiseptic properties of carbolic acid, sulphurous acid salts, chloride of zinc, alcohol, etc. Disinfecting powders, lotions, etc., containing as their active ingredient carbolic acid in some form or other, have been in use among continental and English surgeons for many years, both in civil and military practice. In 1863 Dr. Lemaire, of Paris, published a monograph on carbolic acid. In 1865 the second edition of the same appeared. In the same year Dr. Déclat (Paris) also published a monograph on the same drug. It was, reserved, however, for Mr. Lister, of Glasgow, to originate and perfect a system of treatment, in which the antiseptic virtues of carbolic acid are fully developed and utilized, and rules for its use specifically laid down.

Whenever we take into consideration any special mode of practice, we are not a little influenced by knowing something of the man who originated it; therefore, before analyzing Mr. Lister's treatment, I shall take the liberty of giving you some idea of Mr. Lister as a man and a surgeon. He is a middle-aged man of retiring manners, with a thoughtful expression of face. He is slow and measured in his conversation, weighing, as it were, every word; his opinions are, as the French say, 'bien arrêtées;" he is positive but not arrogant. In talking about the germ-theory and carbolic acid, he does not attempt to convince you by bombastic recapitulation of cases, but he is argumentative. Passing from bed to bed, he pleads his cause and advances his proofs—in the successful results which he shows you—with a degree of modest earnestness that impresses you how deep are the convictions under which he himself labors, and that his rooted faith in the value of the treatment is the fruit of personal investigation and experience. He makes you feel, the while, that he does not wish to make a proselyte of one who does not fully appreciate the bearings of the whole system; for he knows full well that *his* results cannot be obtained without this appreciation on the part of the surgeon who employs the treatment. In fact, he is the last man whom you would accuse of being an enthusiast, but eminently one who evinces that he has "a reason for the faith that is in him." As a surgeon he is more conscientious, patient, and painstaking than any I have ever seen at home or abroad. The scrupulous care with which he makes all the daily dressings of his hospital cases, is worthy of the highest eulogium.

The mortality of surgical cases may be summed up as being due to four general causes:

1st. Shock from injury or operation. 2d. Consecutive inflammation and sequelæ of injuries and operations (profuse suppuration, pyæmia, etc.). 3d. Heterologous formations (cancer, etc.). 4th. Degenerations of tissue which destroy the integrity of organs, and thus interfere with the play of physiological laws, and render the tissues liable to be the prey of physical forces (for example, calcification and atheroma of the coats of arteries, leading to gangrene and aneurism respectively). We all recognize in the second of these general causes the most prolific source of mortality in surgical practice. Exhausting suppuration, sloughing of parts, erysipelatous inflammation, necrosis, caries, hospital gangrene, hectic fever, septicæmia (improperly called pyæmia), are not "household" but *hospital* words, which ring in the ears of surgeons, and hang over their most brilliant triumphs of skill like the sword of Damocles. The records of civil and military surgery bear overwhelming evidence to the decimation which they induce.

Painfully convinced as we are of the truth of the above, we are met with the following assertion, which assigns a cause for all this ravage among surgical cases. Coming as it does from an earnest, conscientious worker in our ranks, it commands our unbiassed consideration. If we determine the full value of its warning, our consciences will not hereafter reproach us that by not heeding the warning, we have neglected the means which suggest themselves, by which we might have saved the lives and limbs of our fellow-creatures.

"All the local inflammatory mischief and general febrile disturbance, which follow serious injuries, are due to the irritating and poisoning influence of decomposing blood or sloughs. The essential cause of suppuration in wounds is decomposition, brought about by the influence of the atmosphere upon blood or serum retained within them, and in the case of contused wounds upon portions of tissue destroyed by the violence of the injury."—Mr. J. Lister's articles in *Lancet*, 1867.

In proof of the above we have the following: "It may be ascertained as a matter of observation that, in a compound fracture (and the same holds good in all other solutions of continuity with an external wound), twenty-four hours after the accident, the colored serum which oozes from the wound, is already distinctly tainted with the odor of decomposition, and during the next two or three days, before suppuration has set in,

the smell of the effused fluids becomes more and more offensive."—Mr. J. Lister.

"Now, whenever such a fluid (putrid) exists in contact with any surface capable of absorption, there is more or less risk of infection of the blood. Such a fluid is usually produced at the surface of wounds, whether the result of accident or operation, and is usually, of course, the decomposing liquor of the pus—hence the assumed specific relation of pus to pyæmia. . . . . Erysipelatous inflammation around the wound, pain radiating therefrom—for instance radiating up a limb,—enlarged glands beyond, followed by abscess and fever, seem referable to poison, rather than to the action of 'a simple local irritant.' . . . . 'Constitutional irritation' is often employed to express an idea of the nature of certain symptoms resulting from a local injury. In those cases which, as a class, are distinguished by well-marked and severe constitutional disturbance, following, after an interval, upon what are called poisoned wounds —in these at length morbid matter passes into the circulation the blood is poisoned."—Wm. S. Savory, F.R.C.S., on "Pyæmia." See *Lancet*, January 19, and February 2, 1867.

As these expressed opinions of the influence of the presence of putrid fluids at the surface of a wound, and the effects thereof upon the general condition of the patient, &c., embody the generally accepted views held by surgeons of to-day, therefore I shall not add anything to them by quoting the corroborative testimony of others.

In a letter which I received from Mr. Lister, while I was in Paris, dated July 5th, 1868, he says:

"I have sometimes been almost ready to despair of being able to drive out of people's heads the kind of notions to which you refer, as to carbolic acid being a good *stimulant*, etc. But I fully agree with you that the only way to bring that about is to convince them of the truth of the germ theory."

Much investigation has of late years been brought to bear upon the presence of septic germs in the atmosphere, and that these are the cause of fermentation and decomposition. But their influence in inducing pathological and conditions of a medical and surgical character interest us more particularly. That they do exist is attested by many of the leading authorities on microscopy.

"It is difficult for the mind to realize the wonderful minuteness, the extraordinary number, and the almost universal distribution of particles of living matter. Not only are they found in and upon the earth and water, but the air teems with them, and is, as is well known, the medium by which particles of comparatively large size, and of complex organization, are carried from the place of their formation to the seat of their development and growth. But of microscopic germs the air contains vast quantities, differing entirely in their nature, their mode of origin, and in the results of their development and growth."—Lionel S. Beale, "On Contagion." See *Med. J. and Gaz.*, Nov. 7, 1868.

In some recent investigations made by Dr. Smith and Mr. Dancer, of Manchester, England, they have found that the air is loaded with living germs.

"Washing the air by shaking it in a bottle with some distilled water, it was reckoned, by the aid of the microscope, that in one drop of the water there were 250,000 spores."—*Boston Journal of Chemistry*, Dec. 1, 1866.

The experiments of Pasteur—as to the determining cause of fermentation and decomposition—prove that when the substances experimented upon are carefully protected from the deposition of atmospheric germs, neither of the processes occur. I saw the results attained by Mr. Lister in his repetition of Pasteur's experiment applied to the decomposition of urine, and can attest to the conviction which they carried to my mind, of the truth of the existence of *something* in the air other than its gases, which leads to the induction of decomposition. I saw urine, to which air had had free access for six months, but by the peculiar manner in which it was kept it had remained unchanged. (Diagram.)—(For full details of the experiment, see Mr. Lister's article in *British Medical Journal*, July 18th, 1868.)

With the influence that atmospheric germs have in inducing internal diseases, it is not the province of this paper to deal; but there is a rich mine of corroborative evidence as to their existence and septic effects. As we have already stated that the presence of putrid or decomposing matter in a wound is the determining cause of "all the local inflammatory mischief and general febrile disturbance," &c., that occur as the sequelæ of solutions of continuity with an external wound, whether from injury or operation, we are prepared for the application of the theory of septic atmospheric germs to surgery.

"Until lately oxygen was universally regarded as the agent by which putrefaction was effected, and it seemed hopeless to attempt to exclude it from wounds. But Pasteur has shown (see "Comptes Rendus," vol. L., p. 306) that the septic property of the atmosphere depends not on the oxygen or any other gaseous constituent, but on minute organisms suspended in it, which owe their energy to their vitality. Decomposition is a self-propagating and self-aggravating poison; and if it occurs at the surface of a severely injured limb, it will spread into all its recesses, so far as any extravasated blood or shreds of dead tissue may extend, and, lying in these recesses, it will become from hour to hour more acrid till it acquires the energy of a caustic, sufficient to destroy the vitality of any tissues, naturally weak from inferior vascular supply, or weakened by the injury they sustained."—Mr. Lister's articles in *Lancet*, 1867.

The experience of surgeons as to the evil effects of crowded hospital wards, inducing an unhealthy condition of wounds, must now be assigned to a more specific cause than insufficient breathing-room for each patient. The effects of "hospital miasms" in surgical wards, upon the materials surrounding the sick, is, to my mind, conclusive evidence of the existence of septic atmospheric germs, and their pernicious influence upon wounds.

"Examples are now numerous where hospitals have become uninhabitable, owing to the infected condition of the walls. The old English Dreadnought, hospital-ship—the walls of which were whitewashed wood, had to be abandoned, owing to the severe endemics of pyæmia, erysipelas, &c., which prevailed in its wards. On the substitution of a new ship, the Caledonia, these affections almost disappeared; but after this latter had been in use seven years, the same diseases became again prevalent. The miasma of hospitals cling to the walls if they are composed of permeable materials. Parian cement, glazed tile, and stucco are now being used for the walls of hospitals instead of ordinary plaster with hair, the latter being permeable. Waxing and polishing floors and woodwork is resorted to, to render them impermeable, &c. Miss Nightingale recommends polished or varnished oak, giving as reasons for her preference, that it is more non-absorbent than other wood."—*American Jour. Med. Science*, July, 1868, pp. 199 and 200.

Much additional testimony of the rôle that the septic atmospheric germs play in surgical cases might be

adduced, but the limits of my paper will not permit it. I have devoted a great deal already to this part of my subject, as it is the corner-stone upon which the whole system of treatment rests. I have endeavored to adduce testimony which would convince every unbiassed mind that will carefully review it, that septic germs are floating in the air, more especially in surgical wards of hospitals, "which are ready to spring into activity whenever the conditions of growth are favorable," and the conditions become so on the surface of a wound.

The claims of antiseptics in surgery are based upon the fact that they have the power of destroying these germs, and thus rendering the air as free from septic influence upon wounds as it was rendered in Mr. Lister's experiment with urine.

The power of sulphurous acid in preventing and arresting fermentation and decomposition has long been an established fact. To Mr. Polli we owe its therapeutical application. The virtues of chloride of zinc have been advanced by Mr. Campbell de Morgan, F.R.C.S., of the Middlesex Hospital, London (Pamphlet "On the use of Chloride of Zinc in Surgical Operations and Injuries," published 1867). The sulpho-carbolates of soda, etc., have, of late, been brought forward, as more efficient than sulphurous acid preparations, by Mr. Arthur E. Sansom, F.R.C.S., London. Carbolic acid, which is the antiseptic agent used in Mr. Lister's system of treatment, outrivals them all, however, as a general local application in surgical practice.

Mr. Lister told me the sulphites were the first antiseptics he used, but that he had discarded them for a better. Since 1865, I have myself been in the habit of using a solution of sulphite of soda as an antiseptic dressing to wounds, etc., with most excellent results, suppuration being diminished and cicatrization accelerated; but they are not comparable in efficiency to carbolic acid as used in the antiseptic system of treatment.

Mr. Lister has also tested the value of chloride of zinc, and gives it as his opinion that it is "very inferior to carbolic acid, except in one class of cases, those, viz., in which, from the circumstances of the part concerned, it is impossible to maintain an efficient external antiseptic dressing, so that the application must be made once for all at the time of the operation. Here the permanence of the effects of chloride of zinc renders it highly valuable, as, for example, after the removal of portions of the maxillary bones," and in all operations similarly situated.—*British Med. Journal*, July 18, 1868.

The value of solutions of the sulpho-carbolate of zinc etc., as a surgical dressing, is at present being tested in some of the London hospitals.

The advantages which Mr. Lister finds that carbolic acid possesses, are:

"1st. It is a most potent poison to the low forms of life which determine putrefaction, and it retains this power, even though diluted to such a degree as to be almost entirely unirritating to the tissues of the human body.

"2d. It is volatile, and its vapor is quite efficacious as an antiseptic upon the air in the vicinity (of wounds).

"3d. It is a local anæsthetic, and exercises a most soothing influence upon a painful wound.

"4th. It is soluble in a variety of liquids of very different properties—and each of these solutions has its own special value in practice."

No other antiseptic yet advanced possesses these combined advantages, and hence it is to be preferred.

The preparations of carbolic acid which have been employed by Mr. Lister during the development of his antiseptic system of treatment have been of various strengths, ranging from the pure acid (liquified crystals) to a dilution in the proportion of 1 part of the acid to 40 parts of a suitable solvent or vehicle. The glacial or crystalline form is used in all his preparations. (It is solid at ordinary temperatures, but melts readily when heated, or when a little water is added to the crystals.)

In his earlier cases of compound fractures, &c., Mr. Lister used the pure acid (deliquesced crystals); but he renounced it, because it induced too much unnecessary irritation, increasing discharge, and thus retarding cicatrization.

The materials used in the present system of treatment are liquid and solid preparations of carbolic acid, and pieces of block tin, tin-foil, etc.

Liquid solutions: 1. In water; 2. In oils or glycerin; 3. In alcohol.

Solid preparations: 1. Paste or putty; 2. Plasters; 3. Ligatures.

The liquid solutions are:

1st. Aqueous Solutions. "Water dissolves but a small portion of the acid, only 1-20th part of the pure crystals, and holds that small quantity very loosely, so as to permit it to act with energy on any substance for which it has stronger attractions, and also to become dissipated by exposure." (It should be kept in a tightly-corked bottle.) It is applicable as a wash to the interior of recent wounds, whether the result of accident or operation. It acts as a potent though transient antiseptic, destroying the vitality of the septic particles or germs that may have been deposited, and then it disappears from the wound by diffusion into the circulation and volatilization, leaving the tissues free from all unnecessary irritation.

2d. Oily solutions. (Linseed and olive oil, glycerin.) "The fixed oils have so strong an affinity for the acid, that they will mix in any proportions with it, and hold it so firmly as not to permit it to act with much energy on the tissues or to become dissipated into the atmosphere. They are therefore bland in their local effects, permanent in their operations, and applicable as an external dressing, acting as a reservoir of the acid, exerting its influence on the discharges as they flow out."

3d. An alcoholic solution of 1 to 4 has been used. Alcohol readily dissolves the acid crystals, almost equal to the oils; but like the watery solution it holds it but loosely. For this latter reason it is applicable to the surface of wounds, &c., especially those that have been exposed for several hours after injury. I remember one case of Mr. Lister's, when—in a compound comminuted fracture of the humerus that had been exposed for nearly twenty-four hours—its use was attended with the most favorable results. Its increased strength renders it more efficient than the watery solution in these cases.

The solid solutions are:

1st. Paste or putty.

This is an oily application made to assume a solid form. Linseed oil, 4 parts, carbolic acid (crystals) 1 part, enough common whiting to form a paste of the consistence of glazier's putty. This has proved itself thoroughly reliable, and is applicable as an external guard over the immediate antiseptic crust which caps the wound of a compound fracture, over the orifice of abscesses and openings into joints, serous cavities, &c. It is a clumsy dressing however.

2d. Plasters.

While I was in Glasgow last summer Mr. Lister was using antiseptic lead plasters of various strengths—1 to 10, 1 to 20, and 1 to 40. These are made with olive oil, litharge, beeswax, and carbolic acid. These proved thoroughly reliable, retaining their virtues for many

hours. As an external dressing or guard, they shed the discharges freely, and kept all underneath antiseptic. They possess some disadvantages. They have more recently been superseded by what Mr. Lister calls the *antiseptic lac.*

It consists of shell-lac with which carbolic acid will mix in any amount by aid of heat; when mixed in right proportions it may be spread, when cool, on calico. In this manner a large quantity of the antiseptic is stored up. It is not softened by the discharges. By brushing over the surface with a weak solution of gutta-percha in bisulphide of carbon, it was rendered non-adhesive. We have in this a durable and perfectly reliable antiseptic external dressing or guard, at the same time a light and neat one. (Samples of the plasters and lac.)

3d. Antiseptic Ligature.

This is prepared by steeping the silk thread for two hours in strong fluid carbolic acid, prepared by adding a small proportion of water to the crystals. This ligature is applicable to the deligation of main arteries in their continuity, or arteries on the face of a stump or wound.

The block tin should be pliable (sample), so that it may be moulded to the part.

There are new terms which have been introduced by the antiseptic system of treatment, which we must have definitions of before we can master the nomenclature of the system.

To "treat a wound antiseptically," involves all the steps exacted by the system in the special case.

To "operate antiseptically" requires similar special precautions.

"Antiseptic curtain" means a piece of muslin saturated with oily solution of carbolic acid, under which cavities are punctured, to prevent regurgitation of any air except that that has been deprived of its germs by being filtered through a carbolic acid vapor. "Antiseptic guard" is the external antiseptic dressing, which is a reservoir of the acid, to be replenished from time to time, preventing the introduction of septic germs to the wound, allowing the discharge to flow out under it, keeping them all the time free from decomposition.

"Antiseptic scab" is the scab formed by the blood and serum with the carbolic acid in the meshes of the lint at the orifice of a wound under which healing goes on.

In the manipulations required in carrying out the antiseptic system of treatment, we must ever bear in mind the existence of septic atmospheric germs, and be particularly careful in not allowing the air to have access to the surface of a solution of continuity or cavity before it has been filtered through an antiseptic dressing.

"We must not expect carbolic acid to act like a charm; it is only in the light of sound pathology and strict attention to details that we can hope to attain, in their full measure, the magnificent results which the antiseptic treatment is capable of affording. . . . In order that the treatment may confer upon mankind all the benefits of which it is capable, there only remains for the progressive advocates of conservative surgery to be convinced of the reality and greatness of those benefits, that (they) may be induced to devote to the antiseptic dressing of a case the same kind of thought and pains as they now bestow upon the planning and execution of an operation."

Methods of Treatment.—The watery solution (1 to 20) should be freely applied to all wounds of whatever character. In compound fractures, part should be manipulated thoroughly to have it penetrate to all the recesses of the wound; during and after the performance of all surgical operations the cut surfaces should be washed with a weaker solution (1 to 40).

The alcoholic solution is to be used in the same cases when some hours have elapsed between the solution of continuity and the application of the antiseptic.

In the performance of operations, all the instruments, probes, knives, etc., should be dipped into a solution 1 to 4 of olive oil before being used. If the operation involves the opening of a joint or serous cavity, drop a 1 to 4 solution in the track of your incisions.

In external wounds, opening pleura, or peritoneum, a solution 1 to 4 may be introduced by strips of lint into the cavity.

2d. The *antiseptic curtain* should be spread over an abscess, joint, or cavity that it is necessary to open, and the puncture should be made under cover of this, and the pus allowed to run out under it; if a loose cartilage in a joint, this should be removed from under it.

3d. *Antiseptic guards*, or external dressing. Lint or muslin saturated with oily solutions have been tried as guards, but are unreliable except when fresh oil is assiduously applied at short intervals, both day and night (adapted to the perineum), or if discharge from wound be trifling, dressing is changed once in twenty-four hours.

The *paste* is used as an antiseptic guard. It is to be spread between two pieces of linen about one-quarter of an inch thick, and should overlap for some distance the sound tissues. It should be saturated daily with strong acid without disturbing the immediate dressing. When covered over by block tin, and it in turn held by adhesive strap and bandage, we have clumsy though very reliable dressing.

The plasters were also used as guards, but now the antiseptic lac has superseded them.

Accumulated testimony includes cases of compound fractures, abscesses acute and chronic, acute necrosis, caries, erosion of cartilage in joints, wounds of joints, wounds of pleura and peritoneum, burns, (ligature of arteries ext. iliac, by Lister; common carotid, by Maunder.) The limits of this paper will not permit a detailed account of these various applications, of the antiseptic system of treatment.

The following are the modifications of our pathological views, and the facts forced upon us by the results attained with the antiseptic system of treatment:—

1. "Granulations have no inherent tendency to form pus, but do so only when subjected to a preternatural stimulus;" hence incised, contused, lacerated, and even gunshot wounds may be made to heal without pus, local inflammatory phenomena, or constitutional irritation.

2. Abscesses, whether acute or chronic, when evacuated antiseptically, "the pyogenic membrane, freed from the influence of the former stimulus (pressure of the contents), without the substitution of a new one (septic atmospheric germs), ceases to suppurate, furnishing merely a trifling amount of clear serum; and whether the opening be dependent or not, rapidly contracts and coalesces. At the same time any constitutional symptoms previously occasioned by the accumulation of the matter are got rid of without the slightest risk of the irritative fever or hectic hitherto so justly dreaded in dealing with large abscesses."

3. "Dead tissues, when protected by antiseptics, rendering them free from decomposition, not only induce no suppuration of surrounding granulations, but may be absorbed by them." For example, necrosed bone, sloughs, portion of artery included in the noose of a ligature.

4. Blood acted upon by carbolic acid, though greatly altered by that action, remains still a suitable pabulum for the elements of the growing tissue."

5. The external wound of a compound fracture may heal under an artificial scab, and the risks to life and limb be reduced to the same percentage as simple fractures of the same bones.

6. "Caries, when no longer laboring, as heretofore, under the irritation of decomposing matter, ceases to be an opprobrium of surgery, and recovers like other inflammatory affections."

7. Injuries and operations opening into the joints or large serous cavities are reduced, as regards their local and constitutional phenomena, to the simplicity of simple wounds.

8. "By the antiseptic silk ligature, deligations of main arteries in their continuity are deprived of the two dangers now attending the operation, viz., secondary hemorrhage and putrid state of the wound."

9. Ulcerations of cartillage of joints, &c., inducing collection of pus, if evacuated antiseptically and treated so, will heal kindly without further trouble.

10. The use of the antiseptic system of treatment in surgical wards will insure their proper hygienic conditions, and render them free from all the endemic diseases which now decimate them: first, carbolic acid prevents the occurrence of centres from which the septic germs of hospital miasm can arise, viz., *putrid wounds;* second, the ward is constantly permeated by the vapor of the acid, and the air is rendered entirely innocuous.

I have always thought that the time would come when we should discover the underlying cause of the great mortality that occurs from the sequelæ of injuries and surgical operations, and, furthermore, that a means of checking it would also be brought to light. That the antiseptic treatment bids fair to revolutionize the practice of surgery appears to me to be a foregone conclusion. The surgeon can now pilot cases through dangers which heretofore have been the shoals upon which his hopes so often wrecked; and the dreaded sequelæ of surgical operations will no longer mar the triumphs of surgical skill. "From the fly that teazes to the pestilence that destroys," the remedy is in our own hands.

NOTE.—The crystalline carbolic acid used by Mr. Lister is that prepared by F. Crace Calvert & Co., England. The German acid is never used by him.

Such of the above quotations as are not accredited, are from Mr. Lister's articles in the *Lancet* of 1867 and 1868, and *British Med. Journal* for 1868, or from his private letters.

Progress of Medical Science.

PATHOLOGY OF BLISTERING.—The pathological changes which take place in some of the simplest, or perhaps we ought to say, in some of the commonest affections, are still but very imperfectly understood. Take the case of a blister. As generally understood, it is supposed to be an exudation of fluid, which, discharged from dilated vessels, passes through the rete mucosum or Malpighian layer of the skin, and accumulates between the epidermis, that constitutes the elevation, and the rete mucosum, which is held to remain attached to the surface of the dermis. The difficulty which at once suggests itself here is, why there should be a detachment of the epidermis from the rete mucosum—why the papillæ should not be left bare when the raised skin is removed. Some recent investigations by Prof. BIESIADECKI show that our previous knowledge of the process, though in the main correct, has not been complete or accurate. He has endeavored to fill up this hiatus, and has taken as the subject of his observations the small vesications that are caused by a burn, because these are quickly produced, and are not, as in the case of the minute blisters which occur in disease, accompanied by any previously diseased conditions of the skin. If a subject be burnt with a hot iron, there will be found in the neighborhood of the eschar, after the lapse of a few hours, sundry small vesications; these are well adapted for investigation. If such a blister be cut out with a portion of the adjoining skin, macerated in chromic acid, and imbedded in gum, complete vertical sections may be obtained. It is then found that both the papillæ and the stratum Malpighii have undergone important changes. In the smaller vesicles the papillæ are enlarged, their connecting tissue presents lacunæ, and the vascular loops are greatly dilated and apparently elongated. The epidermis is altogether detached from the papillæ except in the hollows between the papillæ, and the space between the two is occupied by innumerable very fine fibres, which seem to be on the stretch. The fibres do not at first sight give the idea of elongated cells, as they are of equal thickness and have no nuclei, though one or two may be scattered here and there. They readily stain with carmine. When the vesications are larger, and the fluid more abundant, the fibres are torn through, part adhering to the inner surface of the epidermis, part to the outer surface of the papillæ. Amongst them, some club-like cellular structures, with nuclei in their interior, may be seen adhering to the papillæ by their elongated extremities. In the serous contents of the vesicles a few round nuclei are suspended. BIESIADECKI states he was long in doubt respecting the origin of these fine fibres, but he has now convinced himself that they really proceed from the cells of the rete mucosum, as the intermediate forms between the finest fibres and the unchanged cells may with care be seen, whilst the surface of the papillæ is well defined, so that they could not proceed from the connective tissue. We may therefore conclude that in the formation of a blister from a burn there is, in the first place, a great dilatation of the blood-vessels, which immediately occasions a serous exudation. This permeates the tissue of the cutis and reaches the rete mucosum, the cells of which do not appear to be capable of imbibing fluid. As the deeper ones adhere strongly to the papillæ, and as the accumulating serous fluid cannot escape through the condensed cellular layers of the epidermis, the cells constituting the rete mucosum are gradually put upon the stretch, at first being merely elongated, and finally becoming converted into fibres in which no trace of a nucleus can be discerned. These facts appear to us to be of great interest, and they teach that vesicles may be traversed by a framework of fine fibres, as it is well known is the case with pustules—e. g., those of small-pox.—*Lancet.*

CARBOLIC ACID IN MALARIOUS FEVER.—Surgeons in the Mauritius speak highly of the therapeutical powers of the acid in intermittent fever. It was employed by them in two ways. One grain of the pure medicinal acid in one ounce of water, with a little brandy or bitter infusion, was administered as a medicine three times a day, and with, it is asserted, remarkably good effects, the relapses being less frequent than after the use of quinine. It was chiefly in those cases in which the fit was ushered in by vomiting that Dr. Barraut found the carbolic acid acted with the greatest advantage. Another method of treatment was by hypodermic injection of a solution the pure acid; and a table of twenty-seven cases is given in illustration of the effects, with the detailed account of others. The strength of the injection used by Dr. Tassier was sixty-four grains to four ounces of water, of which as much as from twelve to thirty minims were used at a time.

INVERTED UTERUS REDUCED AFTER FOUR AND A HALF YEARS' DURATION.—Dr. A. K. Reynolds, (*Humboldt Medical Archives*) reports that he was called to a patient in

whom inversion of the uterus had existed for four and a half years. She had been attended by a midwife, who immediately after her confinement had put the patient upon her feet and pulled upon the adherent placenta until the uterus was completely inverted and protruded externally. A physician came, removed the placenta, and returned the uterus within the vagina, but failed to reduce the inversion. Subsequently it was treated by several physicians, some of whom cauterized the surface, supposing it to be ulceration of the cervix. Dr. Reynolds attempted to reduce the inversion, but after an hour's trial it was found necessary to abandon the operation until the rigidity of the cervix could be overcome. To overcome this an elastic air bag was introduced and inflated. By this means the parts were relaxed and the rigidity of the cervix in a great measure disappeared. A second attempt at reduction was successful in about twenty minutes. The patient made a perfect recovery.

Acute Arthritic Rheumatism treated with large Doses of Opium.—W. R. Samples, M. D., was called to attend a patient suffering from a "highly acute attack of rheumatic fever, with a high grade of arthritic symptoms." The arthritic pain was very severe; the heart symptoms indicated pericarditis with effusion. Sulphate of magnesia was ordered to unload the bowels, with a grain of opium to relieve the pain. For ten hours there was no relief, but then he fell into a comparatively quiet sleep which lasted about three hours, but on waking the pain was much aggravated. The opium was then renewed and continued for forty-eight hours, when having had but very little sleep, and the pains continuing most intense, the opium was increased to two grains every hour, until the system was completely under its influence. The opium was omitted for intervals of three or four hours, but immediately renewed upon indications of returning pain, and it was not until three hundred and forty grains had been administered that entire and permanent relief was effected. Save the occasional dose of sulphate of magnesia he took no other medicine than opium until all pain and inflammatory symptoms had ceased, when he was put upon tonics and beef-tea, and on the tenth day he was able to sit up, and rapidly regained his normal health and strength.

Popliteal Aneurism Cured by Manipulation, Flexion, and Digital Compression.—A patient, æt. 25, was injured in the leg by a fall sustained in rolling logs. To the fall and the twist of the leg he attributed the swelling and pain about the knee-joint. The swelling increased until it became of the size of a large orange. The aneurismal bruit was very distinct, and all the symptoms left no doubt as to the character of the tumor. In the treatment the leg was flexed strongly upon the thigh, and firm digital compression was kept up upon the femoral just below Poupart's ligament. At the end of thirty minutes, only a slight thrill could be detected. The compression was continued for sixty-eight minutes, when the leg was secured to the thigh by a strong band of adhesive plaster. It was supposed that the compression already used was sufficient for the formation of a clot, but to make it certain the flexion treatment was continued for some time longer. During the succeeding night the patient had no sleep in consequence of the severe pain experienced. The temperature of the foot and leg was sensibly diminished and the sensibility of the parts greatly increased. On the next day after the operation the adhesive plaster was removed and the leg extended, which afforded great relief. On the second day the tumor was sensibly diminished in size, and on the third no pulsation could be felt. From this time the patient improved, and was discharged on the ninth day after the operation, cured. —G. C. Blackman, M.D., *in the Western Journal of Medicine.*

A Singular Case of Poisoning.—Under the above caption Dr. W. Hobbs (*Western Journal of Medicine*) reports the following: A nursing child, about twelve months old, was seized with convulsions, which lasted two or three days. From these it entirely recovered, but at a corresponding period the next month was again seized with the convulsions. The convulsions lasted from twenty to thirty seconds, and after half an hour's stupor, consciousness was fully restored. The child again perfectly recovered, but at the same time the next month convulsions again occurred. From these it recovered, but they recurred at a corresponding time the next month. The periodicity suggested a more accurate examination into the case, when it was found that the convulsions occurred just at the commencement of the catamenial periods of the mother. The child was at once weaned, and the convulsions ceased to recur.

Svapnia.—Dr. J. M. Bigelow (*Detroit Review of Medicine and Pharmacy*) calls the attention of the profession to this substance, and recommends it to be used as a substitute for opium or morphia. He says: "If, as has been proved by experiments and clinical observations, the three soporific alkaloids in svapnia—viz., meconates of morphia, codeia, and narcia—each have specific and peculiar actions upon the brain and spinal marrow, and located in different portions of the same, it is plainly evident that their combined effects will be modified and rendered milder in their therapeutical action than those of either one separately. Morphine, acting exclusively upon the brain, almost always leaves a disagreeable headache, and frequently a nauseated stomach, an irritable temper, and haggard look that evinces a pathological state of the whole economy. Codeia, exerting its influence principally on the pneumogastric plexus of nerves, calms the system with its anodyne and hypnotic properties without intensifying the concurrent effects of the morphia; and narceine, having peculiar anodyne and somniferous effects, exerting a special influence upon another portion of the nervous system, still adds to the anodyne properties of the other two alkaloids. Therefore, the three combined exert a less amount of narcotic power than either one alone, and are less liable to produce poisonous effects." Svapnia may be used in cases where opium or morphine is indicated, and, the author contends, with much more certainty, as it is uniform in strength. The dose of svapnia is from one half a grain to a grain.

Cod-Liver-Oil in Typhus.—Dr. Robert Lee, of Liverpool, has been prescribing cod-liver-oil as a remedial agent in typhus fever, and gives the following as his reasons therefor: There is going on during fever augmented oxidation; a large amount of urea is formed, part of which is excreted and part retained in the blood (producing uræmia in many cases, which terminate fatally), and a manifest increase of temperature; but withal there is a loss of mechanical power. This is indicated by the feeble action of the heart and the loss of tonicity in the arteries, and by the condition of the bladder and general muscular system; so that the chemical changes result in the abnormal destruction of tissue without any compensating benefit or effect, the forces in operation being transformed into heat. Taking it for granted that these violent changes were the effect of the morbid poison received into the system, and that the oxidizing or fever process, once established,

could not be arrested in its course, I was led to think that means, other than those of doubtful efficacy, supposed or calculated to neutralize and eliminate the poison and its products, might be discovered to accomplish the same end. The most feasible expedient that presented itself was to find an agent which, having an affinity for oxygen, might withdraw its action from the tissues, and afford a pabulum on which it might expend its energy, and thus relieve the system of the great source of danger. It occurred to me that cod-liver oil would effect this object; that, additionally, it would be a source of nutrition, and that there would be a conservation of vital and physical force in consequence. It would thus be the fuel for respiration and animal heat, rather than the living textures, whether Liebig's theory of the hydrocarbons being the normal fuel be correct or not. That a store of fat in the system is a source of power will not be denied; that the animal fats are nutritious, and, as a rule, readily digested, is well known; that it would be directly injurious I had no fear; but that it could be easily administered to a fever patient and digested I was somewhat doubtful. I determined, however, to make the experiment. I was at first disposed to try the effect of inunction after the manner of the ancients, but relinquished the idea in favor of the internal administration of the oil, partly because of the offensiveness and exhaustion. The form ultimately decided upon was a mixture of the oil in combination with dilute hydrochloric acid, mucilage, tincture of orange-peel, and water. The acid was combined with the view of rendering the oil less disagreeable to the palate and more digestible, and of neutralizing the products of metamorphosed tissue; the tincture of orange-peel to assist in covering the taste and smell of the oil, and the mucilage to hold it in a good state of suspension. The mixture is not a disagreeable one. The oil floats when the mixture is at rest; but slight agitation of the bottle causes it to mix readily with the other ingredients.

Definition of Epilepsy.—Dr. Herman Beigel, of London, in a paper recently published in the *Lancet*, says of epilepsy: Patients who fall down, losing their senses, but lying perfectly quiet, without the slightest convulsive movement, are by no means uncommon. Others tell us that they are overpowered by some remarkable feeling, dragging or throwing them more or less violently to the ground, and state positively that, though unable to speak, yet they are aware of everything around them. Convulsions and loss of consciousness, therefore, cannot be considered as essential symptoms of epilepsy, though present in by far the larger number of cases.

But I have never met with a patient whose friends or relatives had not noticed *the* phenomenon characteristic of epilepsy—namely, abnormal actions of the circulating system. In every case I learned that the patient was either deadly pale or red—that the lips were blue or the face and whole body dusky. A patient is still under my care who, when sitting at the dinner table, or when playing at chess, suddenly becomes deadly pale, dropping things out of his hands, remaining motionless for a few seconds or a few minutes, being unable to speak, but knowing more or less distinctly what others do and say. These symptoms occur, sometimes once, sometimes several times, during the day; and when they disappear, leave the patient sleepy. Another patient had the same symptoms, but has been several times thrown to the ground.

Now this, I think, is epilepsy in the truest sense of the word, although neither convulsion nor loss o consciousness is present; and I must add that it is a very bad and disagreeable form of epilepsy.

These observations, in connection with the fact that no abnormal action of the heart can be discovered during the epileptic fits, justify the definition of epilepsy as a disease the characteristic clinical features of which consist in abnormal contraction or relaxation of the blood-vessels, independent of disease of the heart, recurring at intervals, during which the patient, as a rule, enjoys good health.

Life and Food.—Professor Liebig, in his recent articles on food, says: "From a certain age life is a slow decay, a change in the composition of the substance of the organs, which at last unfits them for their work. The arrival of this period may be hastened or retarded; hastened if the nutrition be deficient, retarded if all the inward parts, as far as this is possible by human care, are kept in a proper condition. In consequence of an imperfect compensation for the force expended, a life may be shortened five, ten, or more years. The old peasant dies of his brown bread; he is perfectly healthy, he says, and there is nothing the matter with him, except that he is unable to support the bread. The lasting health of the individual depends on the right proportion of the different sorts of food in quantity and quality. This proportion differs in each one, for it is determined more immediately by the condition or the power of work of his inner organs, and also by the daily work to be performed by the limbs."

Uterine Therapeutics.—The *Lancet*, in its report of the Great Northern Hospital, of London, has the following observations: "We believe Sir James Simpson was the first who drew attention to the use of an intra-uterine galvanic or zinc and copper pessary in the treatment of amenorrhœa, the result of an imperfect development of the uterus. Lately we have noticed these pessaries being used by Dr. Murray, for the cure or relief of an almost opposite condition of matters—namely, subinvolution of the uterus. In this class of cases the uterus may be retroverted or inclined to one side; it is heavy, much larger than natural, and flabby to the touch; the os uteri open, or readily admitting the point of the forefinger; the anterior, posterior, or both lips much thickened or elongated; and at times there is an unpleasant and constant discharge from the interior of the uterus, besides an excess at the periods. These conditions may exist either separately or combined, giving rise to various painful feelings in and about the pelvis. In a case with many of the above-mentioned conditions, where Hodge's pessary had failed to remedy the retroversion and support the uterus, Dr. Murray has met with very gratifying results from the introduction of a straight intra-uterine galvanic pessary. The difficulty of introduction being got over, the uterus was kept in its right direction, and the constant tonic action of the copper and zinc reduced the large flabby uterus, in the course of a fortnight, nearly to its normal and healthy condition. In the non-specific forms of abrasion, ulceration, or granular inflammation of the os and cervix uteri, the local application lately used by Dr. Murray has been the new preparation of glycerine with tannic acid in the British Pharmacopœia. This preparation, if thoroughly and freely used by means of a large camel-hair pencil, twice or thrice during the week, has seldom failed to bring about a healthy condition of the parts. Where there is vaginal leucorrhœa, Dr. Murray passes a roll of cotton wool or lint, some four inches long, well covered with the glycerine and tannin, through the speculum (Ferguson's), which, when withdrawn, leaves the plug in contact with the vaginal walls, and after an

interval of a few minutes this is removed. This treatment has been also used in cases of irritable vagina with much success."

Causes of Cholera. — Professor Pettenkofer gives the following as a summary of his elaborate investigations into the causes of cholera:

In my opinion four conditions are essential in order to bring about an epidemic of cholera:

1. A specific germ.
2. Certain local conditions.
3. Certain seasonal conditions.
4. Certain individual conditions.

I have not investigated the nature of the cholera germ as disseminated by human intercourse. I have only taken for granted that it exists in the intestinal discharges of persons coming from infected places. My own investigations have been chiefly confined to the second and third before-mentioned conditions. Hitherto I have considered the human subject only so far as he is the bearer of the infecting matter of cholera, or of the germ of this matter; and have with facts contended against the pure contagionists, who declare that the infecting matter is produced by a process of multiplication within the bodies of those affected by the disease. My chief proofs of this have always lain in simple *facts* (independent of any theory) as to the spread of cholera over large districts. There are certainly *places* enjoying complete immunity from cholera, also *periods* of immunity. The development of epidemics, and the immunity of many places, is totally inexplicable by the simple assumption of contagion from person to person. Observe the spread of epidemics along the course of railways and other ways of intercommunication. Nor are they to be explained by certain individual disposition of person (food, drinks, domestic arrangements, age, position, etc.); but the circumstances require, besides these, the existence of local and seasonal aiding causes, which have to be assumed.

Are these in immediate relation to the cholera germ itself, or to the individual disposition? Facts speak in favor of the first opinion only. 1. Persons from an unaffected place going to an affected one, are attacked quite as numerously and as soon as the persons who constantly reside in these places. 2. Cases are on record where a person from an infected district conveys (in a way not yet clearly ascertained) infecting matter into a place enjoying complete immunity from cholera; and there, by means of his limited amount of infecting matter, infects a few persons who themselves had never been subject to the local conditions of an infected place, and therefore could not have had their individual disposition altered by it. Facts imperiously demand that we should consider that the "seasonal" and "local" conditions are intimately connected with the cholera germ, although they may, in addition, be in a condition to act on the individual predisposition also.

The infecting matter, in my opinion, is not a product of the human intestines, but of the soil. In so far as we consider the cholera germ of an organized nature, and capable of various degrees of development, it is possible—nay, very probable—that there may be various degrees of infection. The distinction between cholera "germ" and cholera "infecting matter" must be noted. The cholera germ stands in the same relation to the infecting matter as the seed does to the fully developed plant.

New Method of Inducing Artificial Respiration. —Dr. W. P. Bain, at a recent meeting of the Royal Medical and Chirurgical Society, read a paper on artificial respiration, and described what he deems an important modification of the methods now in use. He simply places his fingers in the axillæ in their front aspect, with his thumbs over the outer ends of the clavicles, and draws, with a certain amount of power, the shoulders towards him. On relaxing his hold, the shoulders and chest return to their former position, and so on with alternate motion. In this case, therefore, there is only one movement to be effected instead of three, and he avoids the fatigue of having to bear the weight of the patient's arms as well, as is required by Dr. Silvester's method. It has the advantage also of being accomplished in a more rapid manner than any other plan. As far as the author's experiments have gone, the quantity of air inspired at each movement by this plan is about 30 to Dr. Silvester's 20, and as the operation can be conducted with much greater rapidity, the author considers that at least twice the quantity of air can be inspired by this mode than by any other yet known.

A New Method of Amputation.—Dr. George Buchanan, Surgeon to the Glasgow Royal Infirmary, publishes the following in the *Lancet*:—

In cases of injury or disease demanding amputation in the lower part of the thigh, the operation known as "Carden's" is generally admitted to give the best results, both as regards safety and the shape of the stump. My own experience, especially during the past two years, in which I have operated many times, is decidedly in favor of that method when practicable. But I desire to call attention to a method of dividing the bone in patients under puberty, which I have practised most successfully in two cases, and which I intend to adopt in all similar cases.

Case 1.—A boy, aged ten, had his leg crushed by machinery close up to the knee. I performed amputation by a long anterior flap. After I had cut through the soft parts, I drew the knife round the condyles to divide the periosteum, where I meant to apply the saw, when I found that it passed into the soft cartilage separating the inferior epiphysis from the shaft of the femur. I had laid aside the knife, and by using gentle force easily broke off the epiphysis, leaving the shaft with a rounded end, in which neither cancelli nor medullary cavity were exposed. The wound healed with great rapidity, and it was the most perfect stump I ever saw.

Case 2.—A boy, aged 12, was admitted under my care in May, 1868, with disease of the knee-joint. Treatment failed to arrest its progress, and in the beginning of October there was evidence of degeneration of the cartilages. Amputation was imperative. The operation was performed in the same way as in the last case; this time the separation of the epiphysis being kept in view from the first. A large anterior flap was formed by entering the knife at the condyle, extending a straight incision about three inches perpendicularly downward; then making a semilunar sweep in front of the tubercle of the tibia, and carrying the knife in a straight line to the condyle opposite the point of entrance. A semilunar posterior flap, half the size, was then made. The knife was then drawn round the cartilaginous interval between the shaft and the epiphysis, and sunk into it a short way. By now pressing my thumb-nail into the groove thus made, I had no difficulty in breaking off the lower epiphysis, leaving the shaft of the femur with a rounded end, in which neither cancelli nor medullary cavity were exposed. The femoral artery was effectually secured by torsion, as also three small vessels. The edges of the wound were brought together by silver sutures. The patient was placed in bed, with the stump resting on a

pillow, no dressing of any kind being applied, as is my usual practice in managing such cases. The stump promises to be as perfect as in the last case.

Three advantages seem to me to attach to this plan, which is applicable to all cases of amputation of the thigh in patients under puberty.

1st. The shape of the end of the bone renders the stump exceedingly favorable for the adjustment of an artificial leg.

2d. The end of the bone, being rounded, nodular, and smooth, needs little, if any, alteration by reparative processes during the cure.

3d. The risk of purulent absorption and pyæmia, which always attends the exposure of the cavity of a bone, whether cancellated or medullary, is in this form of amputation absent, so far as the bone is concerned.

I therefore commend this operation to the attention of practical surgeons in operating on patients under puberty.

Pathology and Treatment of "Gall-Stone."—Before the Medical Society of London, Dr. Leared read a paper "On Gall-stone." There are four situations in which gall-stones give rise to morbid symptoms: (1) in the common duct, in which case they cause pain and, if their passage is protracted, jaundice; (2) in the cystic duct, in which case jaundice is absent; (3) in the hepatic duct—jaundice occurs if there is protraction; (4) in the ducts within the liver, when jaundic may or may not occur, but there is a condition resembling intermittent fever. Pain is greatly modified by individual susceptibilities. The great seat of pain is the epigastrium. The author discussed the differential diagnosis of the extrusion of biliary and of urinary concretions, as well as of gastralgia and hysteric pain; and he detailed some interesting cases, particularly one in which, after severe pain, there was sudden relief, and the right side of the abdomen was found to be dull on percussion; peritonitis set in; and at the autopsy the gall-bladder was found ruptured. Dr. Leared objected to the evidence which had proclaimed that mercury is not a cholagogue.

Dr. Thorowgood followed with a paper on the same subject. He narrated the case of a female who, after an instrumental labor, followed by convulsions and a miscarriage some months subsequently, became subject to epigastric pain, accompanied by shivering. The author detected a small tumor in the region of the gall-bladder. Various other diagnoses had been made, but he confirmed his own view by an examination after the lapse of time, and this was subsequently established by the passage of masses of inspissated bile. In a second case, a patient died after peritonitis for a month; there was found a rough oval gall-stone in the abdomen, the gall-bladder being obliterated. He believed in the cholagogue virtues of mercury. The treatment he advocated was belladonna as a sedative, perchloride of iron, and chloride of ammonium.

Dr. Thudichum dwelt on the importance of the pre-existing signs of gall-stones. There was first constipation, then decomposition of bile within the channels, then shedding of epithelium, which formed the nuclei of concretions. He described the chemistry of gall-stones, and requested that any specimens might be forwarded to him at the laboratory of St. Thomas's Hospital, to aid the chemical history, which was now approaching completeness. It was clearly ascertained that mercury acts, *not* as a cholagogue, but chiefly as a purgative. No facts show that it increases bile; the green dejecta which give rise to this notion owe their appearance to the green sulphide of mercury produced.

The President mentioned a case in which he considered that a gall-stone passed into the stomach. He called attention to the peculiar cerebral symptoms existing in those suffering from gall-stones. There is not only an anxiety bordering on despair, but sometimes a direct congestion. He thought that mental strain could be a producing cause of the disease. He narrated a case in which the application of extreme cold to the abdomen entirely relieved the pain of the gall-stone, and facilitated its passage.

Treatment of Cataract by Phosphorus.—M. Tavignot, a well-known and much esteemed Parisian oculist, has lately published, in the *France Médicale*, a series of cases which would go far to prove that frictions on the forehead with phosphorated oil, and instillations of the same into the eye, may contribute to the melting away of the hardened lens or capsule, and the restoration of sight, without the usual operation. These cases are worthy of attention, and should be read by all those who take an interest in ophthalmology.

Cries of a Fœtus in Utero.—The *Scalpel* states that Dr. Dubreuilh, of Bordeaux, had under his care a girl of sixteen, who, toward the end of gestation, was seized with eclampsia. Chloroform was used, and a very small male child extracted. The breech of a second child now presented, and, just as the waters broke, the persons present heard the cries of the child, as if they issued out of a box, and they continued until the delivery was effected by the feet. The cries were heard at the moment when the accoucheur pushed up the breech to seize the feet. Air had probably then penetrated into the uterus, which was not quite filled by the second fœtus, and the latter, having inspired it, began to cry.

Blisters in Children.—Dr. Botti states, in *L'Imparziale* of Florence, December 19, 1868, that he ordered two small blisters for the front of the chest of a child eighteen months old, suffering from severe bronchitis. Unfortunately the two blisters were placed too close to one another (it is not said how long they were left), and a deep ulceration was the consequence. Soothing poultices did not prevent the formation of sloughs; and these, on being cast off, were replaced by others, which adhered like diphtheritic false membranes. The ulceration, in spite of adequate treatment, went on extending, the child lost its strength, and soon died exhausted.

Sutures in Scalp Wounds.—Horace Basan, Resident Surgeon to the St. Marylebone Dispensary, says of sutures in scalp wounds:—After the consideration of the several hundred cases I have arrived at the following conclusions: 1st. That the employment of metallic sutures in scalp wounds is less liable to induce erysipelas and sloughing than strapping with adhesive plaster. 2d. That by their use we are enabled to bring and *preserve* the edges of the wound in most perfect apposition, dispensing with much of the heavy strapping and bandaging in common use. Lastly, That should an inflammatory blush appear at the edge of the wound, or much tension on the sutures ensue from suppuration or otherwise, their removal may be had recourse to forthwith.—*Lancet.*

On the Employment of Belladonna.—Mr. Christopher Heath (*The Practitioner*) finds that the action of belladonna, whether applied locally or given internally, is the same; viz., that by its action upon the vaso-motor system of nerves, it diminishes the calibre of the capillaries, and thus directly reduces the vascularity of an inflamed part.

THE MEDICAL RECORD.

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GEORGE F. SHRADY, M.D., EDITOR.

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FOREIGN AGENCIES.

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New York, April 1, 1869.

THE USE OF THE FORCEPS.

IN the Proceedings of the New York Pathological Society, published in the present number, a lamentable case of forceps practice is related, which carries with it much for the contemplation of every physician. The story is a short one: A physician is in attendance upon a woman in labor; the presentation is regular; everything goes on to his satisfaction, and the safe delivery is with him only a question of time. The friends grow impatient, another medical gentleman is called in, who, without consultation, and against the earnest protest of the first attendant, applies the forceps. The os uteri is not sufficiently dilated, but the determination is to force it. The blades are introduced, and in order to overcome a difficulty in their locking, one is forced through Douglas' *cul-de-sac* and upon the outside of the cervix. The uterine tissue intervening between that blade and the fœtal head is torn through and the child is delivered. The operation was successful, but the patient, rather unfortunately, died. From all accounts, the operator, in order to clear up his side of the question, insinuates to the friends that death was the result of too long a delay in the use of the forceps, and the regular attendant is ungenerous enough to deny the accusation and demand an investigation. A coroner's inquest is held. Dr. Finnell makes the post-mortem examination; the real facts of the case are set forth, and the operator is, as a consequence, forced to answer a charge of malpractice. Let us in charity hope that, for the sake of humanity at least, the operator may be able to assign the cause of death to something besides a perforation of the vagina, and a laceration of the uterus.

The association of death with the use of the forceps in this instance is, to say the least, suggestive of a moral. It would seem that the question of saving time was the main one that came up for consideration in the case before us, and decided the practicability of expediting the delivery. In fact, so urgent was the demand for shortening the parturient act, that the operator could not wait until the os had sufficiently dilated. Even the most eager advocates for forceps practice must admit that this was an extreme case. But we would like to ask how much short of this do many obstetricians go, who are in the fashionable habit of weighing convenience against time?

In the good old time, delivery by the forceps was thought to be, by even experienced practitioners, a capital operation. Nowadays very many of even the younger members of our profession always have their instruments within very convenient reach, and no opportunity is lost to them of improving upon any little delay of nature. To such the child is looked upon in virtually the same light as an aching tooth; the sooner it is pulled out the better, while the operation is thought to be hardly more serious. Accidents sometimes happen in pulling teeth, and so, as we have had occasion to see in the case under consideration, they may occasionally occur in delivering babies. A great many operations are, on account of the frequency with which they are advised and practised, becoming so familiar to us that we begin to treat them as trivial affairs. That of delivery by the forceps is one of these, particularly with the rising generation of medical men. It is no uncommon thing to hear a graduate of a few years' standing boast of his experience in their use, and of the number of cases which he has met with requiring them.

The consequence of this prevalent opinion in regard to the frequency with which forceps may be applied as an aid to nature is, that there are not so many consultations upon the cases as there should be. We have not so far outgrown the accumulated experience of the past as to rule the operation out of the list of capital ones. We have not been able, in spite of the boasted success of the advocates of instruments, to divest our minds of the caution that is in all cases required in their use. And certainly, as far as one case goes, we have strong reasons for assuming that sometimes they can be actually dispensed with, to the positive safety of the patient. Where consultations are obtainable, especially as in the case of our large cities and towns, no one should allow an opportunity to go unimproved, unless at the hazard of his reputation as a careful, judicious, and conscientious practitioner. Under such circumstances convenience would not be the most potent argument for interference; all the indications could be carefully studied, and even at the risk of cheating the younger practitioner out of some of his valuable time, and of denying him the opportunity of displaying a fine set of instruments, the patient might, in the end, be benefited. If this were the case more frequently, we imagine that the number of so-called remarkable cases would dwindle down to an insignificant few, and the number of forceps applications would be proportionately diminished.

Dare we ask whether many of our teachers of obstetrics are responsible for much of the fashionable recklessness in forceps practice? We would not throw any aspersion on their intentions for good to their students, or their desire to guide them properly in the

way they should go, but, in common with others, have thought that these instruments sometimes are placed too prominently in the foreground. There is not unfrequently a strong temptation to speak of their application as easy, and to convey that impression more forcibly than words by their use on the manikin. All this has its due effect upon the student, who is too readily made to believe that he can do as well as his teacher. But, alas! what is perfectly safe in the hands of an expert may be murderous when used by a bungler.

In conclusion, we would suggest to such as may be of the same way of thinking as our unfortunate brother, that it would be well to anticipate trouble in such cases where they would be inclined to be rash, rather than be compelled to benefit by the experience which an occasional lamentable death may afford.

In another column we publish a programme of arrangements for the benefit of such gentlemen as desire to attend the next meeting of the American Medical Association, and to avail themselves of reduced rates of travel by way of the Mississippi river. We will take this occasion also to say, for the benefit of gentlemen who wish to take the direct route from this city by rail, that excursion tickets can be obtained to New Orleans for the comparatively small sum of seventy dollars, the time being about three and a half days each way. In our next we hope to be able to give all the necessary details.

The prevalence of hydrophobia in our immediate vicinity at this time of the year is another one of the many proofs that the disease is not coincident with an elevated temperature. The facts of the so-called present epidemic lean very strongly towards the supposition that the true cause rests in an inequality of the sexes as regards number.

A movement is now on foot to collect the necessary funds for the establishment of another Eye and Ear Infirmary in our City. We have already shown the urgent necessity for such an institution in some of our uptown districts, and sincerely hope that the project will meet with a deserved success. Dr. C. R. Agnew is the gentleman who is empowered by the committee having the matter in hand to collect subscriptions.

Catarrh of the Bladder.—This disagreeable chronic complaint is often very obstinate; it may therefore just be stated that M. Mallez has found the following solution injected *into the bladder* very efficacious: water, ten ounces; tincture of iodine, forty-five drops; iodide of potassium, fifteen grains. When the pain is very annoying, add fifteen grains of extract of belladonna to the above. He has also employed carbolic acid, nitrate of silver, and hyposulphite of soda, with advantage.

Sulphurous Acid, in doses of from one to three drachms, has been tried in Liverpool in typhoid fever, with good results.

Reviews and Notices of Books.

The Use of the Laryngoscope in Diseases of the Throat, &c. By Morrell Mackenzie, M.D., London, Physician to the Hospital for Diseases of the Throat, &c. Second Edition, with additions, and a chapter on the examination of the Nasal Passages. By J. Solis Cohen, M.D., Author of "Inhalation: its Therapeutics and Practice," &c. Philadelphia: Lindsay & Blakiston.

This work of Mackenzie has deserved its success. *Laryngology*, however, is in a very different condition now from what it was at the time of the publication of the first edition of this book, and we question very seriously whether the present issue would have met a very great want, at least without the additions of Dr. Cohen. Works on Laryngoscopy have been so multiplied in the various languages, that all who feel interested in the subject have abundant opportunities of learning the art, so far, at least, as books can teach it.

What we need now are works on the *Diseases of the Throat*. As a guide to the study of disease, this work is both incomplete and unsatisfactory. The most valuable portion of the present edition is contained in the additions of Dr. Cohen. We are glad to have the illuminating apparatus of Tobold recommended, because we believe it to be, on the whole, the most convenient that has yet been devised. For paralysis of the muscles Dr. Mackenzie recommends "*the direct application of electricity to the vocal cords.*" He claims that by this method he has been successful in all but four of over ten hundred cases.

We are surprised that both he and Dr. Cohen adopt the very common error of using "galvanism" for "Faradaism." The current that is produced by the electro-magnetic or magneto-electric apparatus is *not* the galvanic current, and its use should *not* be called galvanization. The best word to use is *electrization*, which will apply to either the galvanic or the Faradaic current.

The work is throughout tinctured with the radical error that electrization is a *stimulant* merely. No mention whatever is made of its powers as a tonic. Dr. Mackenzie also seriously overestimates the value of his method and instrument for *direct* electrization. Over and over again we have demonstrated that *external* applications of electricity in the form of *partial electrization* will cure permanently "hoarseness and loss of voice."

The views of Tobold on this subject are emphatically presented in the American translation of his work on the *Chronic Diseases of the Larynx*. We are sorry that Dr. Cohen has not given more definite and practical suggestions in regard to the treatment of that very common and very distressing affection, *Ohisitis*. Inflammations of the nasal passages are almost universal, and yet all our laryngologists persist in neglecting or despising them. Patients afflicted with the so-called "catarrh" of the nose are not content with being merely examined and diagnosticated: they wish to be *cured*.

To these remarks of Dr. Cohen on functional aphonia we subscribe most thoroughly and heartily: "I do not believe in functional aphonia. It seems to my mind that there can be no important lesion of any organ or set of organs without external change of some kind, although this may be of such nature as to elude our observation."

We are confident that the time must come when the phrases "functional paralysis," "functional dyspepsia," &c., will pass into history, and be remembered only as the relics of darkness and ignorance.

A Handbook of Uterine Therapeutics and of Diseases of Woman. By Edward John Tilt, M.D., Member of the Royal College of Physicians, Consulting Physician to the Farringdon General Dispensary, etc. Second American Edition, thoroughly revised and amended. New York: D. Appleton & Co. 1869. pp. 337.

The medical profession have learned by experience that they cannot always rely on the bare announcement that a second edition has been "thoroughly revised," but this valuable treatise on Uterine Therapeutics has been so greatly amended and enriched, that it has almost the charm of a new book. The vast experience of Dr. Tilt in the class of diseases on which he writes enables him to speak with authority, and renders him eminently practical in his views. There has been a tendency of late to treat the uterus rather than the woman, and to rely too much on remedies merely mechanical in their action. Dr. Tilt's work will do much to counteract this tendency, and to promote a comprehensive and intelligent study of uterine disorders in all their varied sympathies and relations. The author is conservative in his opinions, but he is far from underrating the value of surgical interference; and while presenting chiefly the medical features of uterine treatment, his grand object is to demonstrate the necessity of a right employment of *all* the means and remedies at our disposal, hygienic, medical, surgical, and mechanical, as may be demanded by the nature of the case. The original arrangement of the work has been preserved, but each chapter is loaded with new thoughts and facts. The chapter on Sedatives is particularly suggestive. Dr. Tilt has done the profession good service by this revision of his handbook, and has placed before them, as he himself expresses it, the "pith and marrow of Uterine Therapeutics."

The Ship Captain's Medical Guide. Compiled by Harvey Leach, Resident Medical Officer, Hospital Ship "Dreadnaught." London: Simpkin, Marshall & Co. 1868.

This little manual is designed solely for use at sea, on occasions when professional advice cannot be obtained. It gives a brief account of the diseases and accidents most liable to occur on board ship, with plain directions for their treatment. These directions can be readily understood and carried out by any person of ordinary intelligence, and comprise all that can safely be done in the absence of a medical man. The work has been officially sanctioned by the British Board of Trade, and has already reached a second edition.

On Chronic Bronchitis, especially as connected with Gout, Emphysema, and Diseases of the Heart. By E. Headlam Greenhow, M.D., Fellow of the Royal College of Physicians, &c. Philadenphia: Lindsay & Blakiston.

The scope of this book is suggested by the title. The author presents a large variety of cases which seem to establish the theory that chronic bronchitis depends on constitutional diseases much more frequently than is commonly supposed.

The essays were originally published in the *Lancet*, and the deserved attention they there received led to their republication in this permanent form.

We are sorry that the work, like all of our treatises on medicine, is most deficient in the department which is most important—*Therapeutics*.

Compendium of Percussion and Auscultation, and of the Physical Diagnosis of Diseases Affecting the Lungs and Heart. By Prof. Austin Flint, M.D. Published by William Wood & Co. New York. 1869.

The fact that this Compendium has attained a fourth edition shows its popularity with students and others who feel the need of a reminder. It serves as a sort of index to the memory, and often enables it to recall clearly what would otherwise be difficult to retain in proper order.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Adjourned Meeting, February 8, 1869.

(*Continued from page* 21.)

SURGERY OF THE CERVIX.

In the discussion of Dr. Emmet's paper, Dr. Noeggerath was followed by

Dr. Budd, who said: To the majority of the principles and doctrines which Dr. Emmet has enunciated I can give my most hearty approval; but there are one or two points that I cannot so fully endorse. He has spoken of the detrimental effects produced by the application of caustics to the neck of the uterus, mentioning particularly the nitrate of silver and the actual cautery. So far as the first is concerned, I am satisfied that I see daily the worst effects from it; but I am not prepared to say that these are due to the formation of cicatricial tissue. I do not believe that either of these agents, when applied to the cervix, will produce cicatricial tissue to anything like the same extent as when applied to the cutaneous surface; and several cases in my own experience demonstrate this view. I have in mind one that came under my hands several years ago, and was seen by many gentlemen, some of them now present, in which I applied the actual cautery some fifteen or sixteen times. The remark was made that there would be so much cicatricial tissue as to interfere with impregnation, or to endanger parturition. But the woman soon afterwards became pregnant, was taken in labor at the full period, and was delivered on the chair where she was sitting, before she could get to her bed. Now it seems to me that an individual instance of this kind is enough to upset the theoretical objections to the actual cautery (of which I am particularly speaking), used for the purpose of melting down *indurations*, let them be due to what they may.

In general, anterior displacements occur in the unmarried, posterior displacements in the married. Anteflexion is congenital in a large proportion, if not in a majority, of the cases; and far less than thirty per cent. of them present any symptoms. Posterior displacements, except when due to violence, seem to me to be either accompanied by inflammation or to be the result of old inflammatory action; and therefore I think Dr. Emmet has done wisely in discouraging division of the anterior lip for their correction.

Dr. Peaslee.—With regard to the ætiology of retroflexion, I see no reason why we should feel obliged to say that it is the result exclusively either of inflammation or of traumatic influences. I believe it an effect of many different causes. If I considered it always due to inflammation, I should probably, as does Dr. Emmet, treat the inflammation for the removal of the cause, though it does not follow that this would remove the displacement. But I feel as positive as I can be of any practical question, that retroflexion is often due to no inflammation or traumatic influence whatever, but simply to debility, to loss of tone in one or more of the normal supports of the uterus. We may have loss of tone in any of the ligaments; and then other causes, such as the weight of

the superincumbent intestines, will produce displacement backwards.

With regard to the treatment of retroflexion, I have to say unqualifiedly that I do not attempt to remove inflammation from the retroflected uterus in more than one case out of ten that come to my office. In about ten per cent. of the cases I do find symptoms of metritis; in perhaps half of the remaining cases I find congestion (for we can distinguish this from metritis), and in the others neither metritis nor congestion. If, in such cases, I can apply a proper supporter, the woman does perfectly well. I am not now speaking at all of intra-uterine pessaries, but of the various forms of intravaginal supporters. I say, without any qualification, that about half, or at least one-third, of the cases that come to me with the second, and perhaps with the third, degree of retroflexion, I replace at once and treat by this means, and expect to find no other form of treatment requisite, if I can adapt an instrument. But the ability to adapt an instrument depends entirely upon the natural conformation of the woman. In some cases—but they are very exceptional—one may apply an instrument perfectly at first; in other cases, any one might know at once that no instrument could be made to fit. For instance, if the posterior vaginal wall is as short as the anterior, it is not possible to introduce an instrument high enough to reach beyond the point of flexion, as it must do to be of service. This brings up a point in the pathology of flexion which I consider of vital importance, since the whole matter of treatment by pessaries is dependent upon it; that is, that the point of flexion is *always* at the junction of the neck with the body of the uterus; it is never in the vaginal portion of the neck; and the supporter must always reach above that point of flexion to be of any avail whatever.

Concerning incisions of the cervix I have but a single remark to make. I had occasion to say before this Society, about a year ago, that there are certain eras in gynæcology. There was that of nitrate of silver, and at first everybody used it. Much good was done by it, under skilful hands, and much more harm under others. Then came the era of pessaries, and these were run into the ground completely, until by and by some gynæcologists took the position that they should never be used at all; and this extreme was as foolish as the other. Then came the incision of the neck, which was overdone in the same way. It is a source of great gratification to me to hear a gentleman, who has been one of the pioneers in this matter, state to-night just what are the proper indications for its use. Three years ago this month, I said, before the State Society, that incision of the neck for flexions of the uterus is like tinkering in the basement of a building for leakage of the gas-pipe in the upper story; and I am happy to find this idea confirmed this evening.

Dr. Emmet.—I feel called upon to say a few words, because, in a subject extending over so large a field, I could speak of treatment only in a very superficial manner. I regard very little the position of the uterus. I believe that, as a general rule, version is forwards before marriage and backwards during married life; but the position makes little difference; it is the engorgement which is the important thing. I think the difference has not been recognized which I wished to draw between flexure and version. I have never seen any instrument remove anteflexure or anteversion. In speaking of retroflexion I was speaking only of old cases, where we have almost always adhesions which prevent treatment by pessaries. Of course, if you can replace the uterus and keep it in position by a pessary, you should do so.

Dr. Isaac E. Taylor was much gratified by some of the positions taken by Dr. Emmet, as he had lately been by Dr. Sims' recantation of some of his former views. He had himself never been able to see the great advantages of incision of the cervix, and he thought the cases very few where this operation had been effective. In his own practice he employed constitutional treatment rather than local, as a general rule; and even in cases not simply of acute, but of chronic, congestion, or of what might be called chronic inflammation, he resorted to constitutional treatment as well as local, and attributed to it the greater share in the improvement produced. If there were no adhesions, no chronic inflammation, no chronic engorgement, the division of the cervix might be justifiable. But otherwise the operation would be likely to give no permanent benefit, and should not be practised. The patient might be relieved by it for a month or two, but in the course of five or six months she would be as badly off as ever. The surgery of the cervix, then, had been carried to great excess, and constitutional treatment should be restored to something like its old position; though Dr. Sims would probably say that the uterus was a surgical organ, and should be treated exclusively by surgical methods. It was very important that the younger members of the profession should be impressed with sound ideas upon these points, and not be misled by the apparent brilliancy of an operation which was likely, in the majority of cases, to be more harmful than helpful, and, especially if unskilfully performed, to cast discredit upon the profession.

The speaker agreed with Dr. Noeggerath that anteflexion very frequently existed without the patient's being aware of anything abnormal. If, however, it had occurred in consequence of some irregularity, attention should be given to the abdominal viscera. Minor cases of retroversion might be changed to anteversion by changing the position of the patient; but this was not true retroversion. Amputation of the cervix he had never seen followed by bad results, even where performed just before menstruation. As to the effect of nitrate of silver and similar applications, he could not agree wth Dr. Emmet, but held views more in consonance with those expressed by Dr. Budd, although he himself made very little use of these agents. He did not see how the nitrate could induce the formation of cicatricial tissue, for, even if applied in the solid stick, its action did not extend beyond the mucous membrane.

The President.—It is well known that Dr. Roberts has antedated many things commonly connected with the name of Bennett of London.

Dr. W. C. Roberts.—I belong, as Dr. Peaslee would say, to the nitrate of silver era, and have no experience in the use of cutting instruments. I have dilated the cervix with bougies, etc., and have applied the nitrate of silver with good results. I have very seldom failed to cure the slight superficial abrasions, met with on the neck of the uterus, by the nitrate of silver, the acid nitrate of mercury, or the preparations of iodine. I have never seen anything like cicatricial tissue produced by them.

The President, having been asked to state his views, remarked that, had he thought of taking part in the discussion, he should have been glad to say what had been so well said by Dr. Peaslee with regard to incision of the cervix and the abuse of pessaries in times past,—views which he himself most firmly held. He hailed with much pleasure the broad and clear lines of treatment drawn by Dr. Emmet, which would undoubtedly prove of great service in the future. Without desiring to oppose to them his own views, or to appear in the character of a prophet, he might venture to

say that the operation of incision would yet be confined to still narrower limits than those the doctor had defined; for he could not but think that an operation which involved such a thorough plugging of the cervix with cotton, which must be kept constantly in place until borne away by suppuration, to prevent the possibility of hemorrhage, was a harsher treatment of dysmenorrhœa than the surgery of twenty years hence would warrant. He had seen severe dysmenorrhœa yield to much simpler methods, where the patients had shrunk from operation. One case, which he recalled, was entirely relieved by the use of a series of sounds fitted to slide one upon another, beginning with a very slender one, so as gradually to blunt the sensibility of the cervix until the dilatation was complete. For nine years the woman had had no trouble. He had under observation a patient who had suffered from dysmenorrhœa in times gone by, and had been treated abroad with potassa fusa and other applications, into whose cervix could hardly be passed Dr. Emmet's small uterine probe; and yet she had no longer any dysmenorrhœa. Another patient, strumous, anæmic, delicate, had not the slightest dysmenorrhœa, her catamenia were as regular and painless as possible; yet the cervix would not admit an applicator one-half the size of the flat instrument given to the profession by Dr. Emmet, even at the fortunate period of dilatation just after the menstrual flow. The only occasion for introducing such an instrument was to banish an occasional slight discharge of mucus which the patient deemed annoying. She was sterile, and, years before, he had urged her to submit to division of the cervix on this account, as she was anxious for offspring; but she had not consented. The speaker submitted to Dr. Emmet that these cases showed that mere narrowing of the cervical canal did not of itself constitute a sufficient indication for incision; nor was it sufficient when complicated with dysmenorrhœa until other means had failed.

As to the supervention of fatty degeneration of the uterus upon amputation of the cervix, Dr. Elliot agreed with Dr. Taylor. It seemed very strange that one man should have collected statistics of so many cases of such a result, when we had no account of it elsewhere. He recollected a patient of Dr. Simpson's, who, ten months after amputation of the cervix, was well delivered of a healthy child, and did well subsequently.

As regarded displacements, the distinction drawn by Dr. Emmet between retroversion and retroflexion was obviously founded upon sound anatomical principles. The latter was the law, the former the exception. Retroversion was apt to be the result of accident, and if the uterus retained its malposition it was in one of three conditions: either it was normal, or it had suffered proliferation of its areolar tissue, was hard and heavy, or it was in the initial stage of inflammation and of retroflexion. Except the cases where retroflexion was produced by pressure of the superincumbent viscera; except the cases where the posterior wall of the uterus was so heavy as to draw the fundus down; except the cases where the posterior wall of the vagina was shorter than it should be, or descended from lack of perineal support; except the cases of faulty obliquity of the pelvis, where the angle formed by the plane of the spinal column with that of the brim was faulty and the os pubis was drawn up; except also the cases where loss of tone of the round ligaments was primarily at fault;—and you would still have a large group of cases in which the first tendency to retroflexion was, the speaker believed, purely accidental, and determined by one or more of various causes, for instance, coitus or straining at stool. It was his absolute conviction that the initial lesion was, in the great majority of these cases, the displacement itself. And such a retroflexion, just like a retroversion, might pass off, in many patients, without attracting attention. These cases occurred in married women. What was the result? The fundus uteri was drawn down into the Douglas cul-de-sac, just where it would receive the blows of the end of the penis in coitus, just where it would be pressed upon by scybala in the rectum. Of course, inflammatory symptoms were soon produced; and he believed that this order of sequence was much more frequent than that in which inflammation was the cause of the displacement.

The rules for the treatment of retroflexion, under these circumstances, had been formulated by Dr. Peaslee, in exactly the words he would himself have used. The abuse of pessaries was certainly no argument against their proper use, although this abuse had deserved all the execrations that had been showered upon it. If the vagina were long enough for the pessary to fit properly above the point of flexion; if the fundus uteri were drawn well forwards; if the ovaries had not been dragged down into the cul-de-sac; and if the instrument did not press too hard upon the vagina;—then that the pessary was capable of doing a deal of good it would be absurd to deny; if used without regard to every one of these precautions, it might do very great harm.

Dr. Jacobi.—Most of the gentlemen who have spoken here to-night are liable, from their great practice among uterine diseases, to run certain methods of treatment into the ground. Now I am only a general practitioner. Were any one to tell me that pneumonia is safely treated with tincture of veratrum, I should say yes. Another would say that the veratrum would run, not the disease, but the patient, into the ground; and again I should say yes, but when administered after quite another fashion. Now, if the nitrate of silver is used properly you will get no cicatrix; but if you run your stick into the cervix uteri you will have a cicatrix. So one man praises and another blames the nitrate, and both are right.

There is one other point I would speak of. The condition of an organ in a given case may not be the proper condition for the age or the station in life of the subject. For example, we know that we have organs of great use in fœtal and infantile life, which after a while either disappear entirely or become atrophied, because their function is over. The large liver of the fœtus and the thymus gland are illustrations of the fact that what is the normal condition at one age may be abnormal at another. I have never found a uterus in the fœtus, or in the child up to seven years of age, that was not anteflected. Anteflexion is the normal condition of young life; but later it becomes an abnormal condition, simply because it renders impregnation, in many cases, impossible. The change to the adult position is effected, not by changes in the organ itself, but by changes in its neighborhood. In the infant, if the bladder is empty the uterus is anteflected; if the bladder is full, it is straight. In adult life, after the organs have grown, the uterus is kept up. And thus it may be that, when the pelvis is normal and the bladder large, the uterus is kept up at the age of thirteen or fifteen. It is then straight, and in advanced life it is a little retroflected. I believe that wherever the pelvis is rachitic the uterus cannot be anteflected in later life. It appears to me that this mode of development of anteflexion must be assumed to be the constant one in unmarried women. In married women it is different. It is not always dependent upon peritonitis and adhesions. Without these the uterus is anteflected after confine-

ment. A number of these cases which I have seen have been those in which there was an enlargement of the body of the organ. The uterus remaining enlarged after confinement, and in the position normal for it immediately after confinement, continues anteflected. Now, those cases where the infantile condition is maintained and those where the uterus is maintained anteflected after confinement, both these classes of cases ought to get well under pessaries; only those where the uterus is bound down by adhesions could suffer from pessaries.

I believe there was a little misunderstanding as to fatty degeneration's taking place after amputation of the cervix. I think that Dr. Noeggerath did not mean to say that the normal uterus would undergo fatty degeneration after such amputation, but that the hypertrophied tissue, in chronic metritis, would undergo what might almost be called the normal physiological process of absorption by fatty degeneration.

Dr. Noeggerath explained that he had not made use of the expression "fatty degeneration," but had spoken of the fatty *involution* of the hypertrophied organ.

The meeting then adjourned.

N. Y. PATHOLOGICAL SOCIETY.

Stated Meeting, Feb. 24, 1869.

Dr. L. A. Sayre, President, in the Chair.

After the reading of the minutes of the previous meeting, the reports of the Committee on Microscopy were offered.

OSTEOID DEGENERATION OF CAPSULE OF SPLEEN.

Dr. E. Mason exhibited a specimen of osteoid degeneration of the capsule of the spleen, removed from a dissecting-room subject, male, ætat 40. The contents of the bony cyst were of a semi-fluid consistency. It was referred to the Committee on Microscopy.

THE PATHOLOGY OF DYPSOMANIA.

Dr. Finnell presented several specimens taken from coroners' cases. The first consisted of the uterus and portions of the liver of a female, aged 49, who died of alcoholism. She lived a life of ease, and was the mother of one child. For the past two years it had become her habit after dining in the evening to betake herself to her room and get profoundly intoxicated, allowing no one to disturb her until the morning. She accustomed herself at these times to consume enormous quantities of liquor. Her servants testified to the fact that on the Sunday previous to her death, she drank one quart of brandy, three quarts and a pint of champagne, besides an unknown quantity of other drink. At the autopsy, the surface of her body was covered with bruises, caused by the many falls she had during her fits of inebriation. The liver was exceedingly waxy, but nothing was found about the brain. The uterus was as firm as cartilage throughout, but contained no tumors; the os was remarkably contracted, and had suffered a surprisingly small amount of change. The ovaries and Fallopian tubes were matted together.

APOPLEXY OF VENTRICLES, WITHOUT LACERATION OF BRAIN.

Dr. Finnell also presented the brain and uterus taken from a woman thirty years of age, who had been considered in good health up to within fifteen hours of her death. It was stated that some few days before she had complained of severe headache, but it was not sufficiently severe to interfere with the performance of her household duties. On the evening preceding her death, she complained of distress about her stomach. A physician examined her, and found the left pupil contracted, the right dilated, and the patient fast sinking into a comatose condition. The diagnosis of apoplexy was made, and its correctness was shown at the autopsy by a large clot in each lateral ventricle. The effusion had found its way from one side to the other, through the foramen of Munro, without any laceration of cerebral tissue. The uterus contained an eighth-month fœtus, and the cervix was not in the least shortened.

THE SIGNIFICANCE OF CALCAREOUS CONCRETIONS IN THE VERMIFORM PROCESS.

The third specimen consisted of a calcareous concretion found in the appendix vermiformis. He only exhibited it for the purpose of calling attention to the frequent existence of foreign substances in that locality without any symptoms during life. He remarked that a concretion of some sort existed in that situation in one out of every twenty autopsies that were made, and that they did not appear to excite any local difficulty by their presence. In this connection he further stated, that ten years ago he had collected the appendices of fifty male and fifty female subjects, with the view of ascertaining which were the longest, and the conclusion arrived at was that those in the female averaged a half inch more than the male.

A FREE USE OF THE FORCEPS—LACERATION OF THE UTERUS AND VAGINA.

The fourth specimen was another uterus, removed from a patient who met her death in rather a distressing manner. She had been in labor thirty hours, and was attended by a medical gentleman, who was quietly waiting its termination. Everything was going on reasonably well, her safe delivery being only a question of time. The relatives became impatient, however, and another physician was sent for, who at once advised the application of the forceps. The gentleman in attendance objected to the procedure, as the os was not sufficiently dilated to admit of it. The second party remarked that the case required some interference, and that he could force the dilation. The forceps were accordingly brought forth, the male blade was introduced with comparative ease, but there was a more than usual difficulty with the other. The female blade would not lock, and in order to make it do so, as was afterwards shown, it was thrust into Douglas' cul-de-sac, and on the outside of the cervix. After they were locked traction was made, and all the uterine tissue between this blade and the fœtal head was torn through before delivery was effected. The patient lived fifteen hours afterwards. At the time of the death of the patient a rumor was circulated to the effect that she had died because the forceps were not applied in time; a coroner's inquest was the result, when the facts of the case were brought to light. The rent in the vagina and the laceration of the uterus were exhibited.

CARCINOMA OF FOOT.

Dr. Cutter exhibited a child six months old, with a large, angry-looking tumor involving the tarsus and metatarsus of the right foot, for the purpose of obtaining the opinion of the members in regard to its true character. It had a growth of but three months, and involving equally the dorsum sole, was the size of a good-sized orange. The general opinion of the members present leaned towards its being encephaloid in character.

EPITHELIOMA OF PENIS.

Dr. Hutchison presented the portion of the penis which he had removed by amputation from a patient seventy years of age, for supposed epithelial cancer. As the operation was performed that afternoon, there had been no opportunity for a microscopical examina-

tion. About three months before the patient noticed an abrasion upon the glans, which was subsequently misplaced by a morbid growth involving the immediately contiguous parts, the inguinal glands becoming also enlarged. The organ was removed about midway between the glans and pubes by means of a scalpel, the mucous membrane, at the orifice of the urethra, being divided in four parts and attached to the divided skin, in order to prevent subsequent contraction when the cicatrization takes place. The specimen was, on motion, referred to the Committee on Microscopy.

He also exhibited another specimen, a small fibroma, removed also that afternoon, from the front of the little toe of the left foot of a gentleman forty years of age. It had been growing about five months, and occasioned inconvenience in locomotion only. Referred to Committee on Microscopy.

TÆNIA LATA.

Dr. Lewis Smith exhibited a specimen of tænia lata that had been passed by a child between five and six years of age. The patient, when twenty-one months old, was seized with convulsions, affecting the entire right side, followed by a paralysis of nearly a year's duration. When three years of age the mother first noticed in the fæces some segments of a tape-worm. The symptoms continuing, pumpkin-seeds were administered with the desired result.

CUTANEOUS HORN FROM EYE-LID.

Dr. Noyes exhibited a cutaneous horn, five-eighths of an inch in length, removed from the edge of the upper tarsus of the left eyelid of a young man aged eighteen. On the top of this growth was a single eye-lash. Although no microscopical examination of it had been made, he supposed that it consisted merely of an aggregation of epithelial scales. He considered it a very rare form of disease, but as often happened, a parallel one had just been reported in a late number of the *Boston Medical and Surgical Journal*. The growth in that case was an inch and a quarter in length, was situated on the lower lid, and had existed there for several years.

Dr. Knapp remarked that such growths were not very unusual, and were due more to want of cleanliness than anything else.

Dr. Noyes presented an eye which he had extirpated on account of sympathetic trouble with its fellow.

The Society then went into executive session.

Stated Meeting, March 10, 1869.

Dr. Lewis A. Sayre, President, in the Chair.

The Committee on Microscopy reported the so-called osteoid degeneration of the spleen, by Dr. E. Mason, to be simply a calcareous deposit; the tumor of the toe, by Dr. Hutchison, to be purely fibrous; the tumor of the penis, by the same gentleman, to be epithelial cancer.

INTERESTING CASE OF DROPSY OF FALLOPIAN TUBE, ETC.

Dr. Peaslee presented an intra-abdominal tumor with the following remarks:—

Mr. President: I bring this preparation for two reasons; in the first place it is interesting in point of diagnosis, and secondly it is in itself a preparation of very rare occurrence.

The patient, a lady, forty-one years, first came to me from the country, last May. I saw her on board of one of the North River steamers. She had an abdominal tumor, which was supposed by the physician who sent her to me to be ovarian in character. The question was in regard to the propriety of removing the growth. I found the uterus completely retroverted, so that the os was on a level with the symphysis pubis, was very high up, and I could with difficulty reach it with the index finger. There seemed to be continuously in structure with the posterior wall of the uterus a solid tumor about the size of the fist. I could get no fluctuation in the mass; the whole was impacted in the pelvis so completely that it could not be moved at all. I could with difficulty pass the sound in the uterus to the depth of three inches, just, but could not move the organ to the right or left. The tumor rose a little above the umbilicus, to the right side and to the middle. This upper portion evidently contained a fluid, and fluctuation was very distinct.

The tumor had been detected for the first, ten years ago. She menstruated regularly and had never suffered from menorrhagia. She had been gradually failing in health, became quite thin, and was also anasarcous in her lower extremities. I regarded the growth as a fibro-cystic tumor of the uterus, and advised non-interference with the case until the sac should become so large as to require tapping, which operation in itself would enable us to determine the better its real character. She was first tapped about the first of October, and fifteen pounds were drawn off, and refilling, was tapped again in December, when ten pounds were evacuated, leaving as large a mass as before the operation. Still the physician persisted in the diagnosis.

I saw her again about two weeks ago, she having come to me then with the intention of having it decided whether she actually had ovarian tumor or not. She had filled again, perhaps to a greater extent than before; so that it became very necessary to tap her again, and I did so with a view of determining the precise condition of things, in order afterwards to decide what should be done. I removed eighteen pounds of fluid. It resembled precisely the usual ovarian fluid, especially that taken a second time, except that it was slightly opalescent, giving the appearance as if mixed with a small quantity of milk. I tested it with heat and nitric acid, and found that it contained about half its bulk of albumen. After the sac was evacuated it was very easy to find that the tumor was very adherent to the lower part and on each side above. On passing the finger into the vagina, however, the solid mass which I expected to find had entirely disappeared; it was a mass, as I said before, so very solid that, to my sense of touch, it was clearly a fibrous mass and part of the uterus, more especially the fundus. That had entirely disappeared; I could not reach any sign of the existence of such a mass. The abdominal wall had been so distended that I could easily fold it over the fundus (as is my custom in such cases), and fairly grasp the organ. I could not feel any tumor there; in fact I could find nothing but the sac which I had evacuated, and of course this gave the idea that after all it was an ovarian tumor, and a single sac probably. I then introduced the sound in the uterus, and bringing it forward upon the instrument, produced an anteflexion. I could then very easily bring the organ forward, and could feel very distinctly the fundus and both the horns. Then I could feel that something extended down from the right side, leading to a solid mass, which I had felt before. There was a sac that had not yet been touched, or solid mass, but I could also feel passing off from the left side of the uterus a pedicle which was evidently continuous with the large sac which I had evacuated, which, of course, made it at first very certain that we had an ovarian tumor, rising from the left side. One thing made me doubt my diagnosis, and that was the extreme thickness, roundness and evenness of

the pedicle. I could not find its lower edge; it was of an even thickness, equal to that of the two fingers, all the way down. I was forced to doubt very much that it was an ovarian tumor at all, but I nevertheless considered it proper to advise the patient to have an incision made when her health should be sufficiently improved.

She went on well for three days after the tapping, when she began to lose her appetite, and all that I could do had no effect upon this condition. She had no fever at any time, neither signs of inflammation. She lived until the ninth day, and died of exhaustion.

At the time of the autopsy, Dr. Peaslee stated that the cavity of the uterus was but three inches long, as previously made out. On the right side a true ovarian cyst existed, but on the left was a *bonâ fide* tumor of the Fallopian tube of very large size, the upper rim of which was the large, even, and round mass of tissue which aroused the suspicion of a pedicle. It seems that the tube had become occluded at the very commencement of the uterus; accumulation took place beyond, until the tube itself was distended into a sac with the capacity of eighteen pounds. The whole was adherent to everything in its neighborhood, rectum, sigmoid flexure and to both iliac fossæ. As the sac contained half a pint of blood, which in her condition was an enormous amount to lose, Dr. Peaslee concluded that death was the direct result of hemorrhage. As it was evident that the interior of the sac was uninjured during the manipulations of tapping, the doctor concluded that the blood oozed into the sac after the pressure was taken off. In answer to a question, he stated that the patient had been the mother of three children.

Dr. Finnell remarked that he had within the past few years exhibited to the Society quite a number of specimens of dropsy of the Fallopian tubes, but none of them had a capacity of more than four ounces. The greatest distension was in the neighborhood of the fimbriated extremity.

SERIOUS DISEASE OF HEART WITHOUT RATIONAL SYMPTOMS.

Dr. Finnell presented a heart, on behalf of Dr. Cushman, taken from a man forty years of age, a cutler by occupation. For the last two years he had had repeated attacks of rheumatism, but at no time had he complained of any pain or distress about his heart. The day preceding his death, he worked as usual, being in the apparent enjoyment of his usual robust health, and after taking his supper, retired about ten o'clock. Soon afterwards he complained of some distress across his chest, and arose from his bed and sat in a rocking-chair for a couple of hours, at the end of which time he quietly died.

At the autopsy, there was found hypertrophy of the left ventricle, with dilatation and thickening of the mitral and aortic valves, which were actually of a leathery consistency. The heart weighed twenty-four ounces.

Dr. Flint remarked that when the system was well kept up, a very serious disease of the heart was oftentimes tolerated without any inconvenience in the shape of heart symptoms.

SINGLE CYST OF KIDNEY.

Dr. Finnell presented a kidney, the seat of a single cyst, the largest he had ever seen. It was about the size of a hen's egg, and seemed to have sprung from the cellular tissue of the kidney.

Dr. Lewis remarked that he had met with cysts of the kidney equally as large.

BULLET REMOVED FROM BASE OF SKULL.

Dr. Finnell also exhibited a bullet removed from the palate of a man who attempted suicide by shooting himself with a large cavalry pistol. Immediately after the shot was fired, he became insensible, but soon after reviving he was conveyed to the Bellevue Hospital. Repeated examinations of an opening in the hard palate by the surgeons of the Hospital failed to detect any missile. Finally the patient, tired of the probing, escaped from the institution, and consulted Dr. Finnell. The end of the finger could readily be inserted into the opening for a distance of two inches, when the ball was felt at a point where the palate, superior maxillary, and vomer unite. After considerable manipulation, principally with a tenaculum, the ball was extracted. It was supposed by some of the surgeons at the Hospital that the shot struck the roof of the mouth, fell into the mouth, and was accidentally swallowed. Dr. Finnell thought that the charge in the pistol must have been an exceedingly small one not to have driven the bullet actually into the brain, as he had often seen smaller-sized weapons accomplish a similar work much more effectually. The patient did not complain of anything but a slight headache, which was more or less persistent.

FALLOPIAN PREGNANCY.

Dr. Finnell lastly presented a specimen of Fallopian pregnancy removed from a patient thirty years of age. She was suddenly seized with severe pains in the abdomen, after having supposed herself for some time pregnant. A physician was called in, who made the diagnosis of internal hemorrhage, and she died at the end of twenty-four hours. At the autopsy the right Fallopian tube was the seat of enlargement at its junction with the uterus, and contained a fœtus aged about ten weeks.

DOUBLE URETERS.

Dr. Mason presented a specimen of double ureters, removed that morning from a dissecting-room subject, between forty-five and fifty years of age. The right kidney was very large and fatty, and gave rise to the two ureters, which did not unite until within an inch from the bladder. The left kidney was very small, and its ureter was completely occluded about an inch and a quarter from the bladder, it being bound down in that situation to the ovary, as the result of previous pelvic inflammation.

MAMMARY GLANDULAR TUMOR.

Dr. Delafield exhibited a mammary glandular tumor, removed by Dr. James R. Wood, on the 28th of February last, from a patient aged forty-one years. The history of the patient had already been given to the Society at the meeting of May 13, 1868 (*Vide* Medical Record, vol. iii., p. 258), in connection with a similar tumor weighing six pounds, removed from the same locality. Four months after the removal of that tumor, the patient began to notice a growth in the connective tissue below the gland and in the neighborhood of the cicatrix. It was movable under the skin, and gradually grew to considerable size. The health was not affected, neither were the axillary glands involved.

This second tumor, while it resembled in most respects the former, differed from it in containing a very much smaller amount of solid material, and a disproportionate increase in the cystic element, with intra-cystic growth. The glandular structure, far from being a prominent element, could be made out only with the greatest difficulty. The cells were very much more abundant than in the first. In that case also, in the intra-cystic growths, it was possible to demonstrate the pavement epithelium on the surface of the polypoid

growths, and on the internal surfaces of the cysts in which they were contained.

CYSTIC DISEASE OF KIDNEY.

DR. HUTCHISON exhibited a so-called cystic disease of the kidney, removed from a man, sixty-five years of age, who died from the effects of an injury from a city railroad car. The injury consisted of a fracture of the seven upper ribs. He entered the Brooklyn City Hospital on the 5th of December, and died thirty-six hours subsequently. In making a post-mortem examination, no injury of the lungs was discovered. There were atheromatous deposits upon the mitral and semilunar valves of the aorta, also in the aortic sinus. The heart was enlarged, weighed seven ounces, and was fatty. The right lung was bound down by old pleuritic adhesions. The liver was fatty; the spleen was small, and weighed sixteen ounces. The left kidney was granular, and weighed eight ounces. The right kidney was apparently converted into a cyst, weighed seven and a half ounces, the kidney structure having seemingly all disappeared. The urine drawn from the bladder, after death, was found albuminous, and contained a great number of epithelial scales from the bladder, ureters and kidneys.

DR. LEWIS remarked that cystic disease of the kidney was almost always associated with some obstruction in the genito-urinary tract.

CYSTIC DISEASE OF TESTICLE.

DR. HUTCHISON exhibited a cystic disease of the testicle, removed from a man thirty years of age. Five or six years ago he suffered from chancroid. Two years before, the patient began to have enlargement of the testes, following gonorrhœa. He entered a hospital, was treated two or three months, when the inflammation subsided sufficiently to allow him to resume his duties as a sailor. After the lapse of two or three months, the disease returned, since which time the swelling had never entirely subsided. He was confined for two or three months, with the same result, and was compelled shortly afterwards to come a third time under the same treatment. Finally, becoming very much disheartened, he came to the Brooklyn Hospital for the purpose of having both testicles removed. A compromise was however entered into, and but one was extirpated. The whole organ was converted into a cyst, its natural texture being, besides, displaced by nothing but fibrous tissue. An acupressure needle was introduced under the cord before it was divided, and was allowed to remain for twenty-four hours after.

DR. CUTTER presented the foot of the infant, which he had amputated since the last meeting. He then read a report of the microscopic examination by Dr. Knapp, which showed the disease to be medullary fusicellular sarcoma, originating in the cellular tissue, between the periosteum and plantar fascia.

APPENDIX VERMIFORMIS SIX INCHES LONG.

DR. LEWIS SMITH exhibited the appendix vermiformis removed from a mulatto child, two years old, who died of broncho-pneumonia. The specimen was interesting on account of its extreme length, six inches.

POST-MORTEM DIGESTION.

He also exhibited the stomach and lungs removed that day from an infant who died at the age of about seventeen days. This patient was admitted into the Infants' Hospital on Ward's Island, on the 25th of February. The day after it became fretful, and soon diarrhœa commenced, which continued until the close of its life. About the sixth of the present month a slight cough was noticed, but no disease was detected by physical examination. The child died at two o'clock that morning. The lungs, on being removed twelve hours after death, presented a darkened and diffluent appearance in those portions nearest the stomach, due, Dr. Smith thought, to post-mortem digestion. The contents of the stomach, which by the way had its dependent portion dissolved, presented an acid reaction, as did also the darkened surface of the lungs.

APOPLEXY.

DR. SEWALL presented a brain removed from a lady thirty-two years of age, who died of apoplexy. She was seized rather suddenly with severe pain in the head, which was followed soon after by a comatose condition, in which she died. The effusion amounted to five or six ounces, and was mostly confined to the surface of the posterior lobe of the right hemisphere.

ANEURISM OF HEART.

DR. NEWMAN exhibited a specimen of true aneurism of the heart, for which he was indebted to Dr. Wooster Beach. It was removed from a coroner's case, and no previous history was obtainable. The heart as a whole was very much dilated and enlarged. Its length was six and a half inches; its oblique diameter, from aneurismal tumor to apex, eight and a half inches; width at the base, six and a quarter inches, and at the apex, five and a quarter. The aneurism, which was confined to the left ventricle, had a line of demarcation around its base; its wall was composed of heart-fibre, lining the interior of which were layers of softened and friable fibrine. The tumor as a whole had the following measurements:—circumference nine inches, length three inches, width four inches, and thickness of walls one inch and an eighth. The lining membrane of the heart had been the seat of endocarditis. Dr. Newman supposed that death was the result of an embolus from the cavity of the aneurism.

DR. POST exibited a small calculus which he removed by lithotripsy, from the bladder of a young man, at his clinic. There were four operations performed, respectively on the eighth, fifteenth, and twenty-second of December, and the twelfth of January, after each one of which he was able to travel to Yonkers, a distance of twenty miles. Fifty-five and a half grains of detritus were taken away, and the recovery was complete.

The Society then went into executive session.

ITALIAN PRACTICE.—Now that Lister's antiseptic method has found so much favor, it would be well to turn to Polli's system. Starting from the current notion of the existence of zymotic diseases, the Italian professor gives large doses of the alkaline sulphites in these complaints. He considers that these salts act by modifying the morbidly fermenting matters, the economy being then able to resist their noxious influence. Dr. Ferrani has published two cases of pyæmia in the *Annali* of this year, wherein he succeeded in arresting the disorder. One was the result of the bite of a dog on the knee; the other, a case of amputation of the thigh. In the first the sulphite of magnesia was given (about two drachms a day) after pyæmia had set in; in the second, before the septic symptoms had occurred; in both successfully. Dr. Ferrani observes that a sufficiency of water should be given with the sulphite of magnesia, as it requires twenty parts of water for its solution, sulphite of soda requiring only four. Acid drinks should be avoided. Let those surgeons who now so steadily follow Lister's plan give the sulphites also; they will then, according to Pasteur's and Polli's theories, attack the enemy on both flanks.—*Lancet.*

Correspondence.

ÆTIOLOGY OF VAGINISMUS.

To the Editor of the Medical Record.

Dear Sir—In your journal of Dec. 1, 1868, was published a short communication read by me before the New York Medical Journal Association, with reference to the Ætiology of Vaginismus. I then mentioned that three cases of lead palsy which had come under my observation were accompanied by vaginismus, and I presumed that this spasmodic hyperæsthesia, like the saturnine colic, is a symptom of lead poisoning, and will yield to the treatment for the latter. Now I have had a new and very characteristic case which quite confirmed my statement. The patient, a distinguished French actress, married five years, but sterile, was affected with intense vaginismus, and I suspected lead poisoning through the use of a cosmetic. The next day I was sent for in great haste, as the patient was suffering from agonizing pains in the abdomen. All the symptoms of saturnine colic could be easily recognized, and I found lead in the urine. So this was undoubtedly a case of lead poisoning (by means of a cosmetic), with the symptoms of colic and vaginismus, though without paralysis of the extensor muscles of the forearms. But on close examination the patient said that she had felt for some time a weakness in the forearms, and especially the wrists, which were occasionally painful. I found also the electro-muscular contractility greatly diminished. The usual treatment for lead poisoning, during a fortnight, was sufficient to effect a complete cure of the lead colic and vaginismus, from which latter she had suffered for so many years.

I may add, Mr. Editor, that since I began to pay particular attention to this subject, I am under the impression that a great many neuralgic pains, especially those of the branches of the fifth pair, are probably caused by a chronic lead poisoning with cosmetics, these generally containing a large amount of lead, at least all that I have examined.

I should like once more to direct the attention of the profession to this evil, because they are the only competent persons to inform the patients and their families of the danger which follows the use of cosmetics so largely patronized in this country.

I remain your obedient servant,

W. Neftel.

126 W. 42d st.

ATTEMPTED SUICIDE BY MEANS OF PARIS GREEN.—RECOVERY.

To the Editor of the Medical Record.

Recently I saw in the *Herald* the account of another victim of this, now fashionable poison. It stated that a girl of 16 years swallowed a dose of the poison, and as soon as it was discovered by the inmates of the house she was taken to a hospital, there to arrive "too late for medical skill."

On the 22d of last month I was hastily called to attend a woman who had taken Paris green, and with pocket case containing a few medicines started off, soon finding Mrs. K., aged 35 years, rolling about the floor in intense pain, which she described as burning her throat and bowels. She stated, between the severe paroxysms of pain, that on account of family trouble, she had procured ten cents worth of Paris green, put it into a glass of ale, and then swallowed it.

When I first saw her, which was over an hour after she had taken it, she presented many of the marked appearances and symptoms of arsenic poisoning, viz.: intense burning of throat and stomach, difficulty of speech, very severe cramps of muscles of abdomen and lower extremities, distension of abdomen, and covered with a cold clammy perspiration.

I immediately gave her about 40 grains of sulphate of zinc and 10 grains of powdered ipecac., mixed with two quarts of warm water, which was thrown off with the previous contents of the stomach as soon as swallowed, then gave four raw eggs mixed with half a pint of water, and hurried to procure the hydrated oxide of iron. As this could not be found at the two nearest drug-stores, I returned with three ounces of the precipitated sesquioxide of iron, two ounces of which having been mixed with about a quart of cold water and the half swallowed, she was made to vomit it. In a minute she was made to drink the remaining half of the iron mixture, which was retained.

It was now about two hours since the poison had been taken; the abdominal pains continued with great severity, as did also the cramps of the lower extremities, which were as cold and as rigid as in death; she was wrapped in a warmed blanket, hot irons and stove covers were applied to abdomen and extremities. With the return of heat she became apparently relieved, and in three hours after the poison had been taken I gave her two ounces of castor-oil to carry off the contents of the bowels. During the subsequent twelve hours she had several movements all highly colored with iron. Convalescence has rapidly followed, a slight enteritis only having shown itself, and now ten days after she is perfectly well.

Charles A. Leale, M. D.

ERRORS IN TYPOGRAPHY.

To the Editor of the Medical Record.

Sir—In your report of my remarks before the State Medical Society, as published in the last issue of the Medical Record, you speak of the *double rows of interrupted silver suture*, and the button suture, as being the forms of suture now in general use.

I would say there is no such form of suture as the one first named at present employed by any surgeon that I am aware of.

In speaking of the results of practice with different kinds of sutures, I referred particularly to three forms: 1st, the double rows of interrupted silk suture; second, the interrupted silver suture; and third, the button suture.

Again, in speaking of diagnosis, in cases presenting very small fistulous openings, the plan of the *linen test*, described by me, is called the *linen list*, which gives no one any idea of this simple and very valuable means of diagnosis.

Very respectfully,

Nathan Bozeman.

58 West 33d st.

THE TALIACOTIAN OPERATION.

To the Editor of the Medical Record.

Sir—In your account of the meeting of the N. Y. Academy of Medicine, Jan. 21st, you report Dr. Detmold as having said in the course of his remarks on plastic surgery that he believed the Taliacotian operation of making a nose from the skin of the arm had never been performed in this country.

I trust the Dr. will excuse me for referring him to "Surgical Observations with Cases and Observations,"

by J. Mason Warren, M.D., Boston, Ticknor & Fields, 1867, on pages 30 and 36 of which he will find recorded two interesting cases in which this operation was performed by the famous Boston surgeon, with cuts of the bandage used for confining the arm.

Believing that this almost forgotten method may have its advantages in special cases, and that American surgery has reason to be proud of Dr. Warren's demonstration of its practicability,

I remain, yours respectfully,

J. H. POOLEY.

YONKERS, N. Y., March 8, 1869.

Medical Items and News.

THE GYNÆCOLOGICAL SOCIETY OF BOSTON.—A society with this title has just been started in Boston. Dr. Winslow Lewis is the President, and Dr. Horatio R. Storer the Secretary.

COLLEGE OF PHYSICIANS AND SURGEONS.—Dr. C. R. Agnew has been appointed Clinical Professor of Diseases of the Eye and Ear in this College; and Dr. William H. Draper, Clinical Professor of Diseases of the Skin.

AMERICAN MEDICAL ASSOCIATION.—*Meeting at New Orleans, Tuesday, May 4th*, 1869.—I am authorized by the Atlantic and Mississippi Steamship Co., of St. Louis, to say that they will carry Doctors and their ladies to attend the meeting of the Association, at the following rates, viz.:

From St. Louis to New Orleans, each Passenger					$20 00
" Cairo	"	"	"	"	18 00
" Memphis	"	"	"	"	15 00

Returning,

From New Orleans to Memphis, each Passenger					$15 00
"	"	" Cairo,	"	"	18 00
"	"	" St. Louis,	"	"	20 00

The Company start a first-class steamer from St. Louis every 48 hours, Sundays included, and the usual time from St. Louis to New Orleans, is about six days, and from Cairo to New Orleans about four and a half days. Passengers can go on any of their boats at the above rates, which include meals and state-rooms.

The steamer which will, however, take down the great body of the Doctors wishing to travel by the river, will leave St. Louis at 5 o'clock P. M., on Wednesday, the 28th of April; Cairo on Thursday evening, after the arrival of the afternoon train on the Illinois Cen. R. R.; and Memphis on Friday evening, reaching New Orleans from Monday noon to Tuesday morning.

Parties arriving by railroad, to take this boat, at either St. Louis, Cairo, or Memphis, had better make their calculations to reach the point of embarkation at least one train in advance of the time of the boat's departure. But, if any one should arrive at Cairo or Memphis too late for this boat, he will find one or more boats passing for New Orleans every day, at ordinary fare.

It was deemed best to make the arrangement for a definite fare each way, so that one can go either down or up, or both, as he may choose, by the river, and know in advance just what he will have to pay.

To avail himself of this boat, one may apply on board, making it known that he is on his way to attend the Association, or, perhaps better, write me a line as early as convenient, stating how many ladies, if any, will accompany him.

Good steamers, also, leave Louisville for New Orleans every two or three days, occupying from six to seven days in the passage down. If a considerable number of Doctors should wish to take passage from Louisville, and would make application in a body to E. T. Sturgeon, Supt. Louisville & New Orleans Packet Co., at Louisville, or the captain of a steamer starting at the proper time, he would probably give them a liberal reduction from the ordinary fare, which varies from thirty to forty dollars, according to the style and accommodation of the boat.

From Cincinnati no suitable boat can be taken through to New Orleans, but the Cincinnati and Louisville U. S. Mail Line will take one going to the Association from Cincinnati to Louisville on one of their fine boats, and from thence to New Orleans by rail, for forty dollars, and return him on the same route to Cincinnati free. Two mail boats leave Cincinnati every day at 12 M., and 6 o'clock P. M., except Sundays, one at 12 M. I am not advised as to what arrangements have been made with other railroads.

JAMES F. HIBBERD, M.D.

Richmond, Ind.

FACILITIES FOR DISSECTION IN MAINE.—The application of the physicians of Maine for a law furnishing them with material for dissection, which has been refused by a dozen legislatures, has now taken the shape of a bill which is thought to be unobjectionable. It delivers into the hands of the fraternity the bodies of any persons dying in their city or town, State prison or jail, whose burial must be at the public expense, provided the deceased make no request to be buried, or if his remains are not claimed by friends or kindred.

THE HEALTH OF NEW YORK AS AFFECTED BY THE LIME-BURNERS.—There are in the city four large lime-kilns, consuming over 20,000 tons of oyster shells per day. Each ton gives off about 1,100 barrels of carbonic acid. This will make the total of 88,000 barrels of carbon poured out daily and spread over the city to be inhaled by the people.

THE RINDERPEST IN 1747.—The cattle distemper existed in England in 1747. A hundred thousand cattle died in Lincolnshire. An old diary says that "the Common Symptoms of this Distemper were a runing at the Eyes and Nose, hanging to the Ears, and a Scouring in the body, and sometimes bound, which I apprehend was according to the degree of the Feavour: it was thought infectious, therefore a stop was put to holding any Fairs or Markets for the Sail of horned Cattle, near the Distemper, by an Order of Council; which said Council ordered all Beasts, as soon as discovered to have the Distemper, to be removed from the herd they were in, and immediately shot dead; their hydes cut and slashed in such a manner as to make 'em useless, and then directly to be buryed."

THE CULPABILITY OF PHYSICIANS IN DEATHS FROM OVER-DOSE OF REMEDIES.—Judge Fisher, of Washington, in a recent trial for manslaughter, charged the jury that a mere error of judgment should not be punished, for all are liable to error. If the defendant had given medicine for the purpose of relieving the patient, and by mistake prescribed an excessive dose, he is not guilty of manslaughter. If there was wilful rashness, if he cared not whether the medicine killed or cured, it would be different from a case where medicine is administered with honest intentions. It had been testified that this was one of the prescriptions which it was designed should not be administered after relief was had, and that deceased was relieved by the first dose. The physician was not responsible for the administration of the second dose, and they should acquit him. The jury after a short absence returned with a verdict of not guilty.

A Batch of Centenarians.—John Null, who lives near Iuka, Miss., is now 109 years of age. He is in good health, walks erect, rapidly and without a stick. He suffers slightly from dimness of vision, but hears acutely, and has a good appetite. He has outlived his own children, but his grandchildren constitute a numerous progeny; in fact two-thirds of Tishomingo county claim him as their ancestor.

Mrs. Jeremiah Ladd, the oldest person in Connecticut, died during the past month, of pneumonia, at her residence in East Lyme, aged 108 years and nine months. Her health had been good until within a few days before her death.

Keziah Smithers died in Franklin county, Va., recently, at the age of 125.

Rebecca Smith, aged 103, died in the Marion (Ind.) Poor-house last week.

A Munificent Donation.—Mrs. E. A. Stevens has given a subscription of $10,000 towards the erection of the Hudson County Hospital. This swells the amount in the hands of the committee to about $30,000. Efforts are being made to procure the land occupied by the old United States Arsenal in Hudson City as a site for the building.

The Home for Incurables, West Farms, N. Y.—The second annual report of the managers of the Home for Incurables, commences by stating that the year that has elapsed since the last anniversary meeting "has been a year of blessing," and that the work begun in hesitation, distrust, and fear of failure, has been crowned with success. The largest donation during the year was $30,000, the gift of Messrs. Chauncey and Henry Rose. $2,500 have been received from the executors of the late Peter Lorillard. With these sums and money derived from church collections and private contributions the Home has been carried through the year without debt. Further subscriptions are now required, to enable the managers to increase the accommodations of the Home and the comforts of their patients.

The statement of receipts and disbursements on account of the Home for Incurables for the year ending June 1, 1868, contains the following items under the head of general fund: Balance on hand, $566.11; do. transferred from building fund, $279.69; loan, $128.47; received for current expenses, $9,438.26; for board of patients, $2,500. $15,478.36 have been expended for mortgage and interest due on same, and $3,142.20 for Home expenses.

According to the report of Dr. H. M. Sprague, the physician of the institution, there were remaining at last report, 26; admitted during the year, 28; died, 12; discharged, relieved or cured, 14; remaining, 28.

Immigration.—The statistics of the foreigners who have landed on our shores during the last year disclose some new features.

Formerly the Irish were by far the most numerous class of immigrants. Last year they only numbered 65,134, while the Germans were 117,591. The English were more than one-half the number of the Irish, having reached 33,712. Of all other nations, the total was 26,294, making in all 242,731 immigrants.

On two vessels the passengers underwent great sufferings. The two are the *Leibnitz*, of Sloman's line, from Hamburg, and the *Giuseppe Baccarcich*, from Antwerp. Out of 544 on the *Leibnitz* no less than 108 died, and out of 180 in the latter, 20 died. In the first place, the neglect of the captain to preserve proper cleanliness seems to have been the cause of the calamity. In the latter, the owners were deliberately to blame, having furnished provisions, not only deficient in quantity, but absolutely putrid. The captain of this ship did all he could for the passengers, and shared his own stores with them.

The increased emigration of North Germans is said to have arisen from their dissatisfaction with the Prussian rule. An immense exodus of peasants, many of them in comfortable circumstances, is reported from Hesse, the cause being the great increase in taxation.

The Commissioners of Emigration have exposed a system of selling railroad tickets to emigrants in Europe at prices above the actual rates. Most instances of this occurred in France and Germany, chiefly in Havre —none in Great Britain and only one in Ireland.

Horse-Meat in Paris and Berlin.—The sale of horse-meat has not taken so well in Paris as might have been expected from the first success of the undertaking. We are informed by the official accounts, which have just been published, that during the last twelve months the number of horses slain in Paris amounts to 2,400. Out of this quantity five per cent. have been employed in making sausages, etc.; whilst forty per cent. have been sold to the small *restaurants*, and ten per cent. to the poorer classes. It may thus be seen that the quantity of horse-meat knowingly consumed as such in Paris is very small. Indeed, even the poorest people in that city manifest a strong aversion to horseflesh. The number of horses slain in Berlin during the same period of time amounts to 4,044, thus forming almost double the number slaughtered in Paris. But it may be well to add that the Berlin dyers are now making an extensive use of horse-blood.

Danger of giving Strong Doses of Camphor.—A case illustrating the above has recently been brought under the notice of the Société de Médicine et de Pharmacie de Grenoble. An enema consisting of five grammes of camphor dissolved in the yelk of an egg was given to a child three years of age suffering from typhoid fever. Symptoms of poisoning soon manifested themselves: convulsions, lividity of the countenance, stupor, arrest of the urinary secretions, &c. The employment of coffee sufficed to restore the child.

Cheap Medical Advice.—The *Lancet* states that among the poor and middle classes of Manchester the druggists are styled "doctors;" their usual charge is fourpence for each attendance; in "serious" cases some of them visit the unfortunate patients at their homes.

Gay-Lussac and Pelletier.—The chemists Gay-Lussac and Pelletier, together with other celebrities, have been honored with marble busts in the sculpture gallery in Versailles, France.

New Publications.

A Practical Treatise on Diseases of Women. By T. Gaillard Thomas, M.D., Prof. Obstetrics and the Diseases of Women and Children in the College of Physicians and Surgeons, etc., etc. Second Edition, revised and improved. Philadelphia: H. C. Lea. 1869.

How to Read Character: a new illustrated Hand-Book of Phrenology and Physiognomy, for Students and Examiners, with a Descriptive Chart. New York: S. R. Wells, 389 Broadway. 1869.

On Long, Short, and Weak Sight, and their Treatment. By J. Soelberg Wells, Prof. Ophthalmology in King's College, London. Third Edition. Philadelphia: Lindsay & Blakiston. 1869.

Structural Lesions of the Skin, their Pathology and Treatment illustrated by H. F. Damon, A.M., M.D., Fellow Mass. Med. Society, etc., etc. Philadelphia: J. B. Lippincott & Co.

Original Communications.

SURGICAL DISEASES OF TURKEY.

By H. S. WEST, M.D.

NEW YORK.

In surgery my largest experience has been with diseases of the eye and urino-genital apparatus. The prolonged glare of the sun, with the accompanying dust, is one cause of ophthalmic diseases. Another is the want of proper protection of their eyes on the part of the people, who wear no hat or shade, and travel, not in covered conveyances, but on horseback, and in their journeys find very little shade to relieve them. Also, they are careless with regard to cleansing their eyes, or taking precaution against infection.

I have treated many hundreds of cases of granulated lids. Where the granulations are at all exuberant, I find their cure most rapidly effected by shaving them off as clean as possible with a scalpel, and following up every other day with applications of sulphate of copper.

For entropion I have had several hundred operations. For this difficulty the people have been in the habit of going to their barbers to have their eyelashes pulled out whenever they begin to give trouble. They also have a way of fastening the lashes up to the brows with pitch. A large proportion of my operations have been successful. In some cases I have excised the lashes by the roots.

Cases of cataract are frequent. I have thus far operated mostly in cases of soft cataract, breaking them up with the needle. Sometimes I have had to repeat the operation more than once to obtain a cure, and in some many months have passed before the complete absorption and disappearance of the opaque lens. Itinerant Persians are still much employed by the people, who with a coarse instrument perform the operation of couching. They succeed in some cases, but being ignorant men, they fail in many instances for want of proper care.

Of diseases of the urino-genital apparatus, calculous affections are the most common. For stone of the bladder I have had 69 operations. I have generally performed the lateral operation. Occasionally, where the stone was evidently small, I have chosen the median. About 86 per cent. of my cases recovered. 56 were under 20 years of age, and 13 from 20 to 75. Largest stone weighed 5 oz., supplemented by another of considerable size, whose weight I have not recorded. The largest number of stones I have removed from any one patient has been 12. 46 have had stones of a lithic character, 11 phosphatic, 3 carbonate of lime, and 8 oxalate.

I have had occasion to operate but once upon a female, and then did not have to cut. I first dilated the urethra by passing in a polypus forceps, and opening them, so that I succeeded in passing my finger along the urethra into the bladder and in contact with the stone, and then passing the forceps beside it, I easily seized, and slowly and cautiously extracted a stone of the size of an ordinary plum-stone. The patient had been a sufferer for several years, and for two, confined mostly to her bed. Had had several still-born children. She made a good recovery, and afterwards gave birth to living children.

I met with many cases of retention of urine from impaction of small calculi in the urethra, generally in children. In the summer of 1867 a boy aged 8 years was brought to me several times for this difficulty within a period of two or three months, from whom I removed in all eight calculi, which passed at said times, either singly or by twos, down from the kidney, causing the characteristic colic symptoms, and afterwards the retention.

Before I went to the country an itinerant Koord used to operate on many cases of stone in the bladder by the old Arabic method, or cutting on the grippe, as it was termed. The majority of his adult patients died, and many cases were left with urinary fistulæ. He has not been heard of for several years. That whole country abounds in lime.

Strictures of the urethra often come for treatment. I generally succeed in relieving by dilating with metallic bougies. Orchitis and various diseases of the testicle are common. I have had frequently to extirpate that organ with entire success, relieving much local suffering, and sometimes great constitutional distress. Spermatorrhœa is very prevalent, and is not considered a disease by the people. Masturbation is an almost universal practice among the youth.

I met with strangulated hernia quite frequently, as trusses are not so commonly worn as they are here. I saw one case of scrotal hernia extending nearly to the knees, and another which seemed to consist of almost the entire alimentary canal. Clumsy trusses are made there to order, and fitted to patients. European or American trusses are not as yet much introduced into the country. I am often requested to perform some radical operation for hernia. Some cures are said to have been performed by the cautery. I have had occasion to perform herniotomy eight times—twice for femoral hernia on female patients, and the remainder for inguinal or scrotal hernia in males. The two former recovered, although the operation in one was upon the 6th day, and on the 10th day after, fecal discharge began in small quantity from the wound, and continued, gradually lessening, for about three weeks.

Of the other cases, the only one worthy of special note here, was one which simulated, in some respects, hydrocele. The patient, a healthy young man, aged about 18, came to me with a scrotal tumor upon the right side, which he stated he had had for years, occasionally noticing it to be diminished or increased, but that for the last 36 hours it had been considerably enlarged and painful. On examination I discovered evidence of a large serous accumulation, but on percussion over the inguinal region I diagnosed enterocele. For the last 36 hours there had been constipation and hiccough. Taxis, with the assistance of opiates, having failed to reduce the intestine, a few hours after I began my incisions, and soon came upon a serous covering. On cutting this, I found myself within the tunica vaginalis of the testicle, from which there was considerable serous discharge. Passing through the posterior layer, I came upon a third serous membrane, which proved to be that of the true sac. On laying this open a pint of clear serum was discharged, and there lay before us about six inches of strangulated intestine, already quite purple, and with a number of ecchymosed spots upon its surface. I had occasion to ligate three arteries in the course of the operation. The principal stricture was from the fibres of the conjoined aponeuroses of the internal oblique and transversalis, which I divided freely. The pulse at the conclusion of the operation was 75, and the patient made a speedy recovery. The hernia seemed to be a direct one, and was of a rare order, termed by Wilson encysted.

I found syphilis exceedingly common. The natives call it Frank Iller, viz., European Disease, from which

we would infer that it was introduced into that country from Europe.

One of my most frequent operations was extirpation of tumors of various sorts. The largest of these was adipose in its character, weighing 13 lbs., and suspended, by means of its weight, from the groin of a woman, its point of attachment having in time assumed the form of a pedicle. The patient, to make up for her loss, afterwards presented her husband with a pair of twins, having previously been barren. I have had occasion to extirpate quite a number of epitheliomatous growths, and in none, thus far, has there been any return, six or seven years having elapsed in some cases.

Multitudes of the deaf resort to me to have their hearing restored, and I find many cases of ceruminous accumulations, some where the cerumen has undergone calcareous degeneration. I have met with many other varieties of surgical practice, but what I have enumerated will suffice under the head of surgery for this time.

Midwifery is in the hands of ignorant women. I am now frequently called in abnormal cases where forceps, or version, or other aid is necessary. Have had occasion to resort to craniotomy but twice. Was called to one case of placenta prævia with arm presentation, in which the placenta had been spontaneously expelled before my arrival. I readily performed podalic version, and the patient, although considerably debilitated by hemorrhage, subsequently made a good recovery.

Women are generally about in a few hours after labor, and prolapsus uteri is uncommon among them, nor do they seem to suffer in any way from this early assumption of the perpendicular. I have seen some cases of apparent absence of the ovaries, no mammary development, no menstruation, and a masculine appearance. Saw one case of absence of the uterus, the woman having consulted me for sterility, for which we are often consulted at the East. I have recorded a singular case of lactation in a woman aged 60, who had given birth to her last child 20 years before, and had not menstruated for 15 years. Had acted as wet-nurse to several infants in succession in the same family, having been led to do so in the first instance by her great love for the child of her mistress, whose milk had failed. By fondling it and repeatedly applying it to her breasts, the secretion began to take place, and had continued till the time when I saw her, and had ocular demonstration of abundance of milk.

The physicians of the land are routine practitioners, without any regular medical education. They generally inherit their calling from their fathers, as is true with men of most other occupations. They are very much addicted to blood-letting and purging.

Phlebotomy is generally performed by the barber, who is called for the purpose, either with or without the advice of the physician. They use the spring lancet for cupping; they use a horn instead of a glass, sucking up the flesh through it. They also apply leeches, at the request of the patient or his physician. The anus is a favorite point for their application, both for inflammations or congestions, fancied or real, of some part of the alimentary canal or its adjuncts, and of the brain, or any of the organs or parts of the head or face.

There are also army physicians and surgeons in many of the principal interior towns, who are educated at Constantinople or at some European schools, but they are liable to frequent transfers with the movements of the army, and do not get into much general practice. The Constantinople school is an inferior one, but is improving.

I have myself trained two classes in the regular curriculum of studies, beginning with Chemistry, Anatomy, and so on through all the branches. Have had good opportunities for giving them clinical instruction, but not so good for practical anatomy as are found elsewhere. My students have generally been young men already in practice, and having considerable knowledge of practical pharmacy and of the diseases most commonly found. All the native physicians keep drug shops, and are in the habit of making the most of their pharmaceutical preparations. Some of my students had had a fair preliminary education. Most of them are succeeding in practice. Some have done considerable in operative surgery. One has performed lithotomy as many as 30 or 40 times, and many other operations, as amputations, &c. Some operate successfully for cataract. The physicians of the country generally acquire a good living, and many of them accumulate wealth. The Turkish law requires that all medical practitioners should have a regular diploma, but, like most Turkish laws, it fails of execution.

THE RELATION OF THE SOUL AND THE INTELLECT TO THE BRAIN.

BEING A REVIEW OF PROFESSOR NOAH PORTER'S WORK ON "THE HUMAN INTELLECT."

By GEORGE M. BEARD, M.D.,

LECTURER ON NERVOUS DISEASES IN THE UNIVERSITY OF NEW YORK.

For the preparation of a comprehensive work on metaphysics, Professor Porter was peculiarly qualified by a natively comprehensive and scientific mind, by large and varied acquirements, by a heartiness of sympathy with the outside world, such as is rarely found in metaphysicians, by a healthy liberal moral nature, and by a life-long experience as public instructor in this special department of his choice. On the other hand, Professor Porter was disqualified for this great task by his necessarily limited acquaintance with physiology, and by his evident want of familiarity with the operations of mental disease, as revealed in the dissecting-room of the philosophical anatomist, and in the consulting-office of the practitioner of medicine. The character of this work, both in its excellences and its defects, is suggested by this analysis of the character of its author. In its metaphysics it stands unrivalled and alone; in its psychology it is both incorrect and inconsistent.

In the introductory chapter on the relation of matter to spirit, the writer discusses the various theories and investigations with most refreshing impartiality, with compact exhaustiveness, and with a scientific accuracy that is remarkable for one who is purely a metaphysician, until he attempts to show that the *spirit in its higher manifestations is not dependent on matter.* In the advocacy of his views on this question he uses the following language:—

"We grant that the landscape which we see must first be pictured on the retina. But what change or affection of the material organism occurs when the soul, at the sight of this landscape, images another like it, calls up by memory a similar scene, which was seen years before, a thousand miles distant; or, by creative acts of its own, constructs picture after picture that are more beautiful and varied than the one it is now beholding? Or what bodily changes precede desire and disgust, hope and fear, at these memories and creations? No such changes have ever been discovered."

This is a very clear statement of a fundamental ques-

tion in psychology; and from this passage, as a text, we propose to discuss very briefly the relation of the soul to matter, and the relation of the intellect to the brain, from the point of view of the physiologist and the practitioner of medicine.

The psychologists of our time may be divided into these three classes—

1. Those who hold with Sir William Hamilton that the mind is not situated in any special organ, or "exclusively in any part of the body."

2. Those who hold with Professor Porter that "the soul uses and depends upon the brain as its organ of communication with the material world," but is *not* dependent on the brain for its higher manifestations.

3. Those who hold with Bain, and Maudsley, and Herbert Spencer, that "the brain and nervous system is the proper substance of the soul."

In this classification we pass by the ethereal speculation of Plato and the ancient philosophers, because, prior to the development of anatomical, physiological, and chemical investigations of modern days, even an approximation to a correct psychology was an impossibility. Even as late as the 18th and 19th centuries the greatest geniuses made the greatest errors in all attempts to interpret the relation of matter to spirit. For the same reason we pass by the crude materialism of Darwin, and Hartley, and Cabanis, whose speculations, though in the opposite direction, were fully as undemonstrable. We also pass by the fanciful speculations of C. Staniland Wake, and the startling generalizations of David Page, because in the present condition of science they can neither be proved nor disproved.

The theory of psychology that we desire to offer differs somewhat from any of those we have cited.

We hold, in the *first* place, that in every man there is an immortal soul, which may be identical with the vital force, or may be correlated to it and to all the other forces of the body. This doctrine accords with Revelation, with the intuition of mankind, and would seem to be proved negatively or by exclusion from the investigat ons of science itself.

We hold, *secondly*, that the soul, acting on the brain, produces intellect, just as when acting upon the digestive apparatus it produces digestion; in other words, that the intellectual nature, in the *whole range* of its capacity to know, to feel, and to will, is the *function* of the brain, just as truly as digestion is the function of the apparatus of digestion. The arguments that sustain this view are drawn—

1. *From the comparative anatomy of man and animals.*
2. *From the comparative anatomy of the different races.*
3. *From the comparative anatomy of the sexes.*
4. *From the comparative anatomy of individuals of different grades of intelligence.*

The brains of great geniuses, so far as they have been observed, are always superior to those of ordinary men, either in quantity or quality, and oftentimes in both.

5. *From the fact, recently established, that in diseases of the intellect, insanity, idiocy, and so forth, morbid conditions can always be found in the brain sufficient to account for all the symptoms.*

The man who has done more than any other to enable us to make this statement with positiveness is Professor Schroeder van der Kolk, of whose writings we are surprised to find no mention in the psychological division of this work of Professor Porter's.

It has also been shown by the experiments of Du Bois Reymond, that recognizable changes in the physical constitution and function of the nerve may be produced by artificial measures; and the conclusion is a logical one, that morbid causes, of whatever kind, may have the same effects, and may in time produce results that are both serious and permanent.*

There are degrees and stages in the diseases of the brain, just as there are degrees and stages of the diseases of any other organ, and the conclusion is logical and inevitable, that the slightest forms of mental or nervous derangement are but the symptoms and expressions of corresponding slight disturbances of the central nervous system. The present prospects are that the microscope and chemistry will establish this question beyond a doubt. On the other hand, it is established by fair probability, that disease of any other organ, however severe or long continued, never produces mental derangement without first inducing disease of the brain.

6. *From our knowledge of the minute anatomy of the brain as revealed by the microscope and chemistry.* According to Lockart Clarke—a high authority on this subject—the convolutions of the human brain consist of *eight* distinct concentric layers. These are formed of very fine fibres, and of cells in an *infinite* variety, lying very closely together. Under a very close examination it is seen that there are an *infinite* number of communications between an *infinite* multitude of cells, of an *infinite* variety of forms. These cells vary in diameter between the $\frac{1}{1000}$ to $\frac{1}{300}$ of an inch, and in shape may be pyramidal, pyriform, triangular, round, oval, or fusiform.

Macaulay finely compares the mind of Bacon to the tent which the fairy Peibanon gave to Prince Ahmed, "Fold it, and it seemed the toy for the hand of a lady; spread it, and the armies of powerful sultans might repose beneath its shade."

In view of what is now known of the wonderfully complex anatomy of the human brain, we see that this happy comparison may with full justice be applied to every intelligent being.

Chemistry has shown that the proportions of the solid constituents of the brain, and especially of phosphorus, vary with the intelligence in different individuals, and in the same individual at different epochs of life, being least in infancy and the decline of old age, and greatest at maturity.

7. *From the fact that after intellectual labor an increase of alkaline phosphates is detected in the urine.* We have already stated that phosphorus is an important constituent of the healthy brain. We believe that all of our physiological psychologists would substantially endorse the bold declaration of a recent German writer, "*ohne phosphor kein gedanke*"—without phosphorus no thought.

The phosphates that are found in the urine after intellectual labor, are the products of the metamorphosis of the tissues of the brain. Dr. H. Byasson, in a recent pamphlet on this subject, states that, "provided a man should be subjected for three days to a uniform diet, and placed under nearly similar external circumstances, it would be possible to determine, by analysis of urine alone, which day had been passed in repose, and which had been spent in physical or mental exertion." (*Vide* MEDICAL RECORD, March 15, 1869.) We hold that every intellectual act, from the meanest to the most exalted, is attended by a corresponding metamorphosis of nerve-tissue. It has been found by chemical analyses of the *extractives* of nerves that their functional activity is accompanied by definite change or waste of tissue, closely resembling that which is observed in muscles after they have been thrown into activity.

The logical conclusion is inevitable, that for all the phases of intellectual activity—the cool calculation of

* Reynolds' System of Medicine, vol. 2, p. 48.

the man of the world and the wild frenzy of the poet, the hate of the ruffian and the affection of the maiden—for the lightest whisper of fancy, and the weightiest toil of reason—for the oath that falls from the reprobate, and for the prayer that breathes from the heart of the devotee—for all thought, all will, all emotion, there is a corresponding change and waste of tissue in the brain of which the intellect is the function.

We have stated that Prof. Porter's psychology was both *incorrect* and inconsistent. It is incorrect because it is at war with the established truths of science, because it impliedly and necessarily *confounds* the intellect with the soul. It is inconsistent because, having admitted that the "soul uses and depends upon the brain as its organ of communication with the material world," it yet asserts that it is not dependent on the brain for its higher manifestations.

Where, we ask, is the line to be drawn? Prof. Porter replies that no one has seen the molecular changes in the brain during an act of the imagination. But this objection will apply just as truly to all the lower manifestations of the soul. No man at any time has seen thought being secreted in the brain. This objection then, if admitted, overthrows his whole system of psychology.

But in the strictest and largest sense, how very few of the established truths of science are seen with the eye or heard with the ear! Nearly all the accepted generalizations of astronomy, of chemistry, of physics, of medical science, and all of the doctrines of our current theology, are demonstrated not by the seeing of the eye nor by the hearing of the ear, but by *logical and inevitable probability*. From what is known we argue to the unknown? Direct sense-perception only supplies us with the raw material of science; the entire superstructure is erected and adorned by the combining power of reason and the imagination. This objection, that we do not *see* the processes of thought in the brain, is best met by a passage in this very work, wherein the author declares, with a glowing and truthful eloquence, that it is only by the imagination that we arrive at the conception of the Divine Being and of all spiritual attributes and relations.

8. *From the facts already established in regard to the Correlation and Conservation of Forces.*

Prof. Porter's statement that "it is by the limited that we reach the unlimited," applies with special pertinence to what Faraday eloquently termed "the highest law in physical science which our faculties permit us to perceive—the Conservation of Force."

The known and familiar forces—light, heat, electricity, magnetism, and motion—are correlated to each other, and, so far as experiments are able to show, no force is ever annihilated. From these known facts, that to a certain extent are visible to sense-perception, we may rise toward the unknown; and by logical probability we may arrive at the grand conception that the soul of every man is correlated to all the other known forces of the body—heat, electricity, magnetism, nervous force and motion—and that the Creator himself is correlated to his entire creation. This theory is considerably in advance of Prof. Porter, but it is not materialism; it is rather a compromise between the materialists and the spiritualists, and will, we think, in time be substantially accepted, at least by those who do not ignore religion.

This theory harmonizes with our intuitive ideas in regard to the immortality of the soul and the existence of a God. If none of the forces are ever annihilated, but are correlated to and persist in each other, the soul, if it be correlated to the other forces of the body, can never be *annihilated, but must be immortal.* For the same reason God himself must be eternal.

We do not think that the facts and the premises warrant the probable conclusion to which Prof. Porter arrives, that the *soul and vital force are identical.*

We already know that the human body contains several forces that are correlated to each other. Why may it not contain other forces still? Beside electricity, magnetism, heat and motion, why may it not contain nervous force and a soul, and why may not all be correlated to each other? According to Dr. Schelske, of whose suggestive experiments on this subject we are surprised to find no mention in this work, it appears that the rate of travel of the nervous force can be measured with perfect accuracy. He has ascertained, by means of the chronoscope, that the rapidity of the nervous force varies in different individuals, but that its average speed is 97.1 feet a second; in the active and nervous it moves more rapidly than in the cold and phlegmatic. These experiments may lead to important discoveries.

This doctrine, and *the facts* of the correlation and conservation of forces, are of vast import and of profound significance. We hold with President McCosh that this is the battle-ground between materialism and spiritualism, and we are surprised that Prof. Porter has given the subject so little consideration. It was at least worthy of the honor of being distinctly presented and fairly refuted. It is a doctrine of which no lover of truth, of God, or of religion need be afraid. When accepted in its fulness and carried to its logical conclusions, it exalts our ideas of the destiny of man and our conceptions of the glory and goodness of the Creator.

Of the section of this work which is devoted to Representation—memory, fantasy, and imagination—we can truly say that it is incomparably superior to anything that we have ever before read on the subject. We have perused it over and over again with eager and increasing interest. But even these magnificent chapters are colored throughout with the same radical errors of psychology. The author states that bodily disorders injure the memory by "disturbing and distracting the attention;" and again, on page 323, he quotes with approval the remark of Coleridge, that "*sound logic, healthy digestion*, and a *quiet conscience* are the proper conditions of memory."

The implication intended by these statements is the most serious error in the whole book. We speak on this subject with all the more emphasis, because the question is not one of opinion, or theory, but of unquestioned and demonstrated fact.

The essential conditions for a good memory are these three:

1. *Natural endowment of brain.*—There are as many different kinds of memory as there are different kinds of talent among men, and all are as much dependent on the brain for their existence as digestion is dependent on the apparatus of digestion, or respiration on the lungs.

The intellect is the function of the brain. Memory is one of the faculties of the intellect. Therefore memory is one of the functions of the brain, and in its quantity and quality must correspond to the quantity and quality of the cerebral substance.

2. *Careful and special training.*—From this view neither the spiritualist nor the materialist will dissent.

3. *A healthy brain.*—The soul acting on the brain produces memory, and all the other faculties of the intellect, just as when acting upon the digestive organs it produces digestion.

If the organs of digestion are sound, the digestion will be good, though all the rest of the body is saturated with disease. Just so, if the brain be sound,

the memory will be good (so far as its natural or acquired capacities will admit), even though every other organ of the body is in a morbid condition. In exceptional cases the memory becomes morbidly active and is then a symptom of some diseased condition of the brain, just as a morbid appetite is often a symptom of disease of the stomach.

It is true that disease of any part of the body may impair the digestion, but only by sympathetic or reflex action, and probably not until it has communicated a morbid condition to the organs of digestion. Just so, disease of any part of the body may impair the memory, but not until by sympathetic or reflex action it has given rise to some morbid condition of the brain.

There is no question that the word "functional," which at best is a mere cover for our ignorance, must in time be gradually discarded as that ignorance grows less.

The lungs may be hollowed by wasting tubercles, the liver may be eaten by cancer, the function of digestion may be attended with perpetual distress, and the conscience may be harrowed by remorse, or seared as with a hot iron, and yet the memory and all the other faculties of the intellect remain clear and unimpaired.

On the other hand, the slightest effusion of blood in the brain, and even a congestion or molecular disturbance of the hemispheres, may destroy the entire memory, or some special phase of it, for a lifetime. Cases illustrative of both aspects of this question are so familiar to students of nervous diseases that they need not be cited.

This remark of Coleridge was recorded in the times of men's ignorance, and is not worthy of our day, nor of modern science. As a scientific explanation it is of about as much value as the semi-witticism that Emerson quotes so approvingly: The man who has a diseased liver is a Presbyterian, while he in whom this organ is healthy is a Unitarian. These generalizations are the relics of dark eras when even physicians did not know whether the intellect was located in the head or in the abdomen, and when diseases of the organs of digestion were supposed to be the direct causes of diseases of the mental, moral, and emotional nature.

It is only indirectly, and probably by first inducing disease of the brain, that indigestion can affect the memory, or any of the intellectual faculties.

We are sorry that our limits will not permit us to dwell on the more pleasing task of commendation. We regret that we cannot illustrate by selections the remarkable fairness with which Prof. Porter has presented the views of opposing schools; the completeness of arrangement by which he has met the wants of both the student and the general reader; the wonderful exhaustiveness of the work, its varied wealth of learning, its deep suggestiveness, its aptness and clearness of diction, and the high moral tone with which it is throughout pervaded and ennobled.

This work on the Human Intellect belongs to the same school as the Lectures on Metaphysics of Sir Wm. Hamilton. Hamilton is, however, the more original and aggressive, Porter the more complete and exhaustive.

Porter's work contains nothing so bold and suggestive as Hamilton's chapters on Attention; Hamilton is nowhere so fairly and compactly exhaustive as is Porter in the discussion of the faculty of Representation.

In psychological views, and familiarity with modern science, Porter is the more advanced, but Hamilton is the more consistent; yet both are twenty years behind the science of the time in which they respectively wrote.

The scientific errors and inconsistencies of Porter are the necessary result of his education and habits of thought, and the wonder is, that in an age when professedly scientific men must strain every nerve to keep abreast of the progress even in their own specialized departments, one who has been favored by but little scientific training or study has yet presented their cause, on the whole, with such ability and fairness.

The mind of Prof. Porter is pre-eminently a scientific mind, and if it had been furnished with those facts and experiences that only the dissecting-room and consulting office can teach, he would have been the first to oppose the very theories for which he now so earnestly contends. That our clergymen and professors—the teachers of our teachers—who are so advanced in general culture, are thus notably behind in science, is largely the fault of our own profession, which has sadly ignored the great duty of diffusing its knowledge through society.

But this work, with all its errors of psychology, is deserving of far more attention than, we fear, it will be likely to receive. A generation that runs after Barbe Bleu and Humpty Dumpty; that calls "What Answer" a "brave deed," and allows the authoress of Beulah to pass unpunished, will be slow to receive, and still slower to appreciate, a thoughtful treatise like this on the Human Intellect. Metaphysical themes, which in the dark ages of the past were justly dreaded and despised, under the light of recent science should now be courted and loved. A careful study of works like these—whatever their errors may be—will serve not only to discipline and furnish the intellect, and exalt our conceptions of man and of his Creator, but also to guide us in the practical details of professional duties—to make us better physicians as well as better men.

ERYSIPELAS AND QUOTIDIAN INTERMITTENT FEVER;

THEIR IDENTITY—THE MOST SUCCESSFUL TREATMENT OF ERYSIPELAS.

By W. NEFTEL, M.D.

The exact examination of patients is of great value, not only for a correct diagnosis but also because it often brings forward some new facts the least expected by the observer himself. Two cases, which I will briefly relate here, have led me to the belief that the causes of erysipelas and quotidian intermittent are identical.

A gentleman about sixty years of age had been operated upon for carcinoma of the left axillary glands, which had become affected a year after the extirpation of a malignant tumor in the left mammary region. The patient, entrusted to the care of a physician by his operator, who had to leave for Europe, was doing very well; the wound was nearly healed by granulation, and he was able to take a walk, when it was found necessary to make a small incision in the skin. The same night, February 8th, the patient was attacked with a severe rigor, and the next morning the wound was found dry, the skin around it covered with an extensive erysipelatous redness; there was a very high fever, with confusion of ideas and hebetude. He was ordered large doses of hyposulphite of soda, and bromine applied externally. The following day his condition grew worse; he again had a rigor, with considerable collapse, and the erysipelas extended over the upper part of the left arm and the left side of the thorax to the spine and sternal bone. I was then called in consultation with the attending physician. The pa-

tient had again had a rigor, temperature 105.8° Fahr., respirations 32, pulse 120, irregular and with intermissions, features collapsed, tongue red and dry, intellect dull, the wound quite dry, covered with a whitish gray, pultaceous mass, and surrounded with erysipelas extending over the left arm, enormously swollen, and the left half of the trunk. Bowels constipated, and very scanty, high-colored urine. The same treatment as before being continued, the condition of the patient became alarming; the erysipelas had now spread over the whole trunk, and showed a decided tendency to extend to the scalp. The fever was of a continuous type, with evening exacerbations, when the temperature attained 107.6° Fahr. The prognosis was considered fatal by the attending and other physicians.

We now resorted to an entirely different plan of treatment. We prescribed muriatic acid to be taken internally, and every few minutes ice-water to drink; ordered frequent cold sponging, continual cold applications to the head, and twice a day Ol. terebinthinæ to be applied to the whole surface affected with the erysipelas.

The patient soon began to improve under this treatment. The temperature fell half a degree or a whole degree every day; his head became again clear; the tongue moist; the urine abundant and of a natural color; the erysipelas began gradually to fade away, with the exception of a small space on the forearm, where an abscess had formed and was opened; the original wound was nearly healed. I will here mention that when the erysipelas and fever were already decreasing, perchloride of iron was suggested for internal use, which, however, we were obliged to discontinue the same day, as the thermometer showed a great increase of temperature, and we noticed an aggravation of all the other symptoms. In general, Liquor ferri perchloridi, though often considered as a specific, ought to be entirely discarded from the treatment of erysipelas, for like all the preparations of iron it increases the temperature, and is, therefore, injurious in febrile diseases. At last the erysipelas had entirely disappeared; the temperature had become nearly normal, and we considered the patient convalescent. But this condition lasted only twenty-four hours. The next morning, at 11 o'clock, a rigor, followed by heat and perspiration, returned with all the alarming general symptoms. The temperature rose to 107.8° Fahr, a height it had never before attained, and the fever seemed of a continuous type with daily rigors. I was making frequent thermometrical observations, and once found the temperature approaching the normal; it so remained for about half an hour, and began ascending again to the same fearful figure of 107.8° Fahr. All the symptoms presented the characteristic picture of pyæmia, and the disease was considered as such by the attending physician, as it would have been by every other and myself, had it not been for the thermometer, which alone could reveal the real nature of the illness. A single observation of a normal temperature in the course of high fever is decisive of intermittent, for no other febrile disease presents such fluctuations of temperature—from the highest possible to the normal. I consequently diagnosticated the quotidian intermittent fever, and we prescribed quinine in large doses, which the patient took during six days. Although the rigors appeared no more, and the temperature somewhat decreased, still the fever continued very high—102.5° and 104° Fahr. We then decided to discontinue the quinine, as we thought the quantity taken sufficient, and as I had already noticed on former occasions the daily paroxysms generally cease with the discontinuance of quinine. It was the same in this case. The fever did not return any more after stopping the quinine, and the patient entered the convalescent stage. The wound healed entirely, and he regained his former health.

Now arises the question of the origin of the quotidian fever, and why, after the erysipelas, it should appear in a person who has never before had intermittent. It attacked him at a time and place where intermittent fever does not occur epidemically or endemically, during the coldest period of the year, and in an excellent house in one of the healthiest localities of this city. Nevertheless, I would not have ventured to ascribe the quotidian fever and erysipelas to the same cause had I not been confirmed in my supposition by another recent case, to which I must now allude.

A married lady, a few months ago, had been suffering from a very severe febrile disease, with great prostration, delirium, intense heat, diarrhœa, and all the other symptoms of typhoid fever. The thermometer, however, discovered it to be a pernicious quotidian intermittent fever, from which she made a very slow recovery. After a while she was attacked with erysipelas of the face, with intense fever, seemingly of a continuous type, but which, on close examination, proved to be a quotidian intermittent, and yielded to the use, or rather after the use of quinine.

So in this case, too, the quotidian intermittent alternated with erysipelas. At present I can only briefly give my views upon their identity, but hereafter I mean to investigate this subject more accurately. Admitting the cryptogamic origin of intermittent fevers, we have to demonstrate the now hypothetical fungus of the quotidian, which, being cultivated on various soils and under various conditions, must produce either the erysipelas or the quotidian.

In speaking of intermittent fever I here mean the quotidian, it being the only one that, under my observation, has alternated with erysipelas. The quotidian may differ, for instance, from the tertian as much at least as scarlet fever differs from measles, taking into consideration the following facts: It is known that the intermittent fevers differ essentially from all the others by the amount of chlorine or chloride of sodium in the urine. This deviation is so constant and characteristic that a recent writer, Senator,* in an excellent paper, is inclined to exclude from the class of fevers the intermittent, the paroxysms of which we have so long been in the habit of considering as the very type of fever. Indeed, whilst in all febrile diseases, as pneumonia, typhus, acute articular rheumatism, etc., the quantity of chloride of sodium in the urine diminishes to such an extent that during the several days of acme scarcely a trace of it can be detected; in intermittent fevers, on the contrary, the amount of this salt is enormously increased. Taking the normal quantity of common salt in the urine of the adult to be about 16 grammes during twenty-four hours, or 0.7 during one hour, it will be during the paroxysms of intermittent fever 2 grammes, 3 grammes, and even 4 grammes an hour. But such probably will not be the case with the quotidian fever, as I have had the opportunity to observe in one patient. I found by Liebig's volumetric method the quantity of Na Cl 0.2 grammes during an hour. Of course, a single observation made in private practice can scarcely be of a great exactness, it being almost impossible to be sure of the correct amount during the twenty-four hours, and to decide this question we must await the results of observations on hospital patients.

* Beiträge zur Lehre von der Eigenwärme und von dem Fieber. *Virchow's Archiv*, Bd. 45, Hft. 3 and 4, page 410.

ENGRAVED ON STEEL BY THE MECHANICAL PROCESS

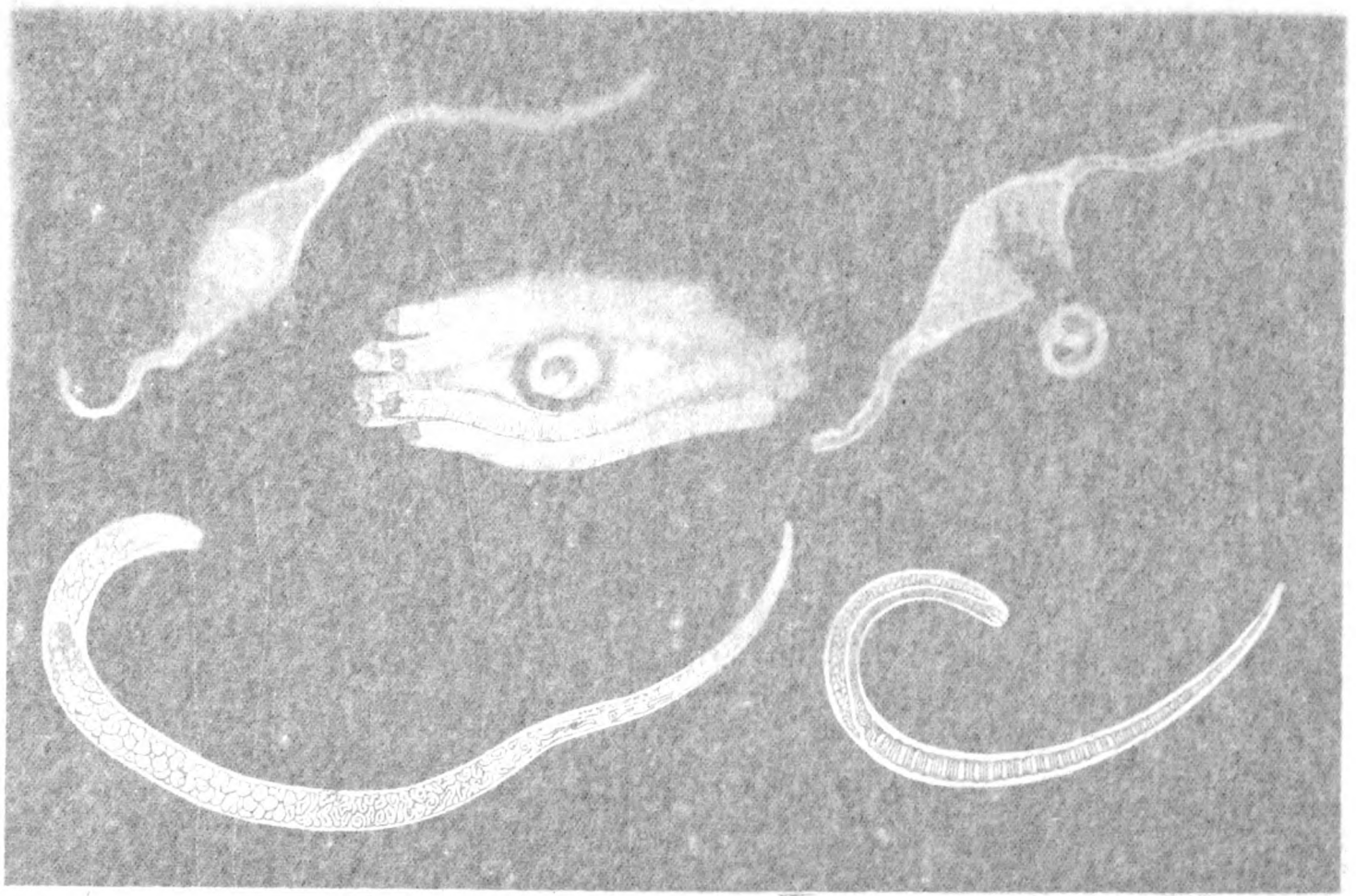
FIG. 1. ENCYSTED TRICHINA FROM HUMAN MUSCLE.

FIG. 2. RECENT ENCYSTED TRICHINA FROM HAM.

FIG. 3. CYST RUPTURED BY PRESSURE AND TRICHINA EXCITED.

FIG. 4. ENCYSTED TRICHINA EXTRACTED FROM THE CYST AND UNWOUND.

FIG. 5. ADULT FEMALE TRICHINA WITH YOUNG FROM MUSMALL INTESTINE.



Before speaking of the treatment of traumatic erysipelas, I have to state that it is now quite decided that it is an infectious disease, that the infection is transmitted, especially in hospitals, through surgical instruments and dressings containing the infectious matter even in a dry condition. Already ancient surgeons knew that wounds often become attacked with erysipelas after having been examined with the probe, and, in the majority of cases, we physicians carry with us the infectious matter, as I believe was the case with the old gentleman whose history I have here related. The erysipelas appeared the same day the incision was made by his physician, who, at the same time, attended another fatal case of erysipelas of the scalp. Judging from the way the erysipelas spreads, and especially from the nature of the remedies to which it generally yields, we are entitled to presume that the infection is introduced through wounds by some organized bodies (fungi) which proliferate and propagate the disease until their development is checked by some antiparasitic remedy, as, for instance, tincture of iodine, which is an excellent parasiticide, or camphor, so extensively used internally and externally by Pirogoff, or, again, extreme cold—ice. Luecke * always applies ice for arresting the progress of erysipelas of the scalp, and he has never lost a single patient out of the large number of his cases. Penetrated with the idea of the parasitic origin of erysipelas, Luecke tried the external use of Ol. terebinthinæ, which for many years he had been using with excellent results against other parasitic affections of the skin, and found it invaluable. He applies it to the whole affected surface twice a day until the erysipelas disappears. The most remarkable and constant effect of this remedy, as I have observed myself, is the immediate decrease of the temperature, which declines according to the intensity of the application, depending, probably, upon the destruction of the infectious (pyrogenic) matter.

Original Lectures.

TRICHINA SPIRALIS:

A LECTURE DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, FEB. 20, 1869.

By JOHN C. DALTON, M.D.,

PROFESSOR OF PHYSIOLOGY AND MICROSCOPIC ANATOMY.

GENTLEMEN:—The subject of Trichinosis, to which our attention will be directed to-day, is remarkably interesting in three points of view. First of all, it is a disease of extreme importance with regard to its possible frequency, the fatality which it sometimes manifests, and the ease with which, at any time, it may show itself in a community where it has been previously unknown; at the same time it is a preventable disease; and in the third place, it is especially interesting as an instance of a malady which has been discovered, so to speak, suddenly, within a comparatively short period, although undoubtedly it has existed unrecognized from time immemorial.

Trichinosis, as you are all now aware, is a disease produced by the infection of the muscular system by a minute parasite, which has received the name of *trichina spiralis*. The existence of trichina spiralis in the muscles of the human subject, has been known for over thirty-five years. As early as 1832, little bodies were discovered in human muscle, which upon examination were found to consist of ovoid sacs, and a few years later it was found that each one of these sacs contained a minute round worm coiled spirally upon itself. This discovery was first made in the muscles of a hospital patient. In that case it was found that the trichinæ were exceedingly numerous and scattered throughout the body, in the substance of the voluntary muscles. Since that time they have been noticed, in many instances, in persons who have died from accidental causes, from pneumonia, from phthisis, and various other affections: from diseases, in a word, which would appear to be entirely disconnected with the existence of the parasites; so that notwithstanding the great abundance of the parasites, medical men were forced to the conclusion that they exerted no deleterious influence whatever upon the subjects inhabited by them.

I have here a specimen, which I took myself from the human subject, some ten years ago. It is the rectus femoris muscle, and, like the other voluntary muscles in this case, it is full of these parasites. You will see here the regular appearance of the trichinæ as they are usually seen, and as they were exclusively known previous to about the year 1855. Look at this muscle very carefully; you will find, just visible to the naked eye, minute ovoid bodies situated between the muscular fibres, having an opaque envelope and a transparent, but apparently dark-colored, centre. On dissecting out these bodies with needles, it is found, as I have said, that they consist of an ovoid sac, and inside this sac the worm lies, spirally coiled up. This is the old encysted trichina, such as you see in this drawing. (*Vide* Plate, Fig. 1.)

Between the fibres of the muscle, and lying parallel with them, is the ovoid sac, somewhat pointed and yet slightly rounded at its two ends, and swollen in the middle, where the worm is coiled up. Now the trichina is coiled in such a manner inside the sac, as to make about two turns and a half upon itself. One extremity of the worm is blunt and rounded, the other is more pointed, and the two lie so near each other that half a turn more would bring them together. These bodies, although so minute, are yet visible to the naked eye on close examination in such specimens as this; because, as you readily find under the microscope, they are partly solidified by a calcareous deposit in the cavity of the sac. This deposit is of a gritty and almost crystalline texture, brittle, breaking upon firm pressure, and is composed, probably, of phosphate of lime, slowly deposited, so as to give to the extremities of the sac an opaque appearance and a very firm consistency.

This is the condition in which the trichina presented itself in all specimens brought to the observation of medical men, for some twenty-five years after its first discovery. They were cases of old, encysted trichinæ. All that was known about them was that they were encysted, that they did not exhibit any distinct sexual apparatus, and that they did not appear to produce any distinct symptoms by their presence in the human organism.

But between the years 1850 and 1860, certain experimenters in Germany undertook to examine the natural history of this parasite more closely. They did so by administering portions of muscle infected with it to the lower animals; and they found—especially Leuckart, who was the most successful in these investigations—that the worms, apparently so insignificant in size, and so incomplete in development so long as retained in the muscular system, become further developed when introduced into the intestine of another animal. After a short time the sexual apparatus appears, copulation takes place, the female produces living young, and these young penetrate finally into the muscular tissue of the second animal, and there domicile themselves for an in-

* Anwendung des Ol. terebinthinæ bei Erysipelas traumaticum. *Berlin. klinische Wochenschr.* 1868. No. 45.

definite time. In this way somewhat more definite ideas were acquired with regard to the natural history of the worm, as found in the inferior animals. By a continuation of these experiments, it was found that this infection of the muscular system with trichina may show itself in the pig, the cat, the rat, the mouse, the rabbit, and, I believe, one or two other species of the inferior animals.

So far, nothing more had been learned with regard to trichinosis as constituting a disease in the human subject. The new era in this respect opened with the year 1860. At that time an epidemic of trichinosis occurred in Germany. The members of a family living in Dresden were taken sick with symptoms similar to those of acute rheumatism, mingled with those of typhoid fever. One of them, a servant-girl, died, and on examination it was found that her muscles were filled with trichinæ. The attending physician and Professor Virchow tried the experiment of administering the trichinous muscles to a rabbit, and found that the rabbit became infected with the parasite, and died in about four weeks' time. The infected tissues of this rabbit were administered to a second, which became infected in the same manner, and died, like the first, in about four weeks. Finally, a third rabbit was fed with the flesh of the second, with a similar result. These experiments show that the disease, as it exists in the human subject, may be transmitted to the lower animals; that it may be transmitted indefinitely from one animal to another, the parasites passing alternately from the intestines to the muscular system, and again from the muscular system to the intestines. These are the general outlines of the origin and course of the disease known as trichinosis.

Now let us see what are the details of the anatomical structure and physiological development of the worm itself.

I have said that, as you examine the trichinæ in those cases where they have existed in the muscles for an indefinite period, where they have become encysted, and the cavity of the cyst has been invaded by calcareous deposit, it is not easy to make out their anatomical structure. But in cases where the disease is recent, and particularly where it can be traced to the recent use of trichinous flesh as food, the anatomy of the worm can be made out with more distinctness. Such a case happened in this city about five years ago. Some sailors, on board ship, were taken sick while in port with symptoms resembling those noticed in the Dresden family, similar to those of typhoid fever and acute rheumatism combined. It was found that the disease originated, in their cases, from eating raw pork or bacon. About the same time other cases of the disease became developed in persons living permanently in the city; and it was found in these cases that the difficulty could be traced to the use of ham imperfectly cooked.

A portion of this ham came into my possession, and in examining it, I found not only that the meat was trichinous, but also that the parasites were in a decidedly different condition from that which they exhibit in cases of long standing. The first peculiarity was that the cysts in which the worms were contained, instead of having definite and rounded ends, gradually tapered off into long and slender prolongations, the extremities of which could not be reached, being entangled in an intricate manner with the muscular fibres. In these drawings you see represented the cysts containing the trichinæ, as found in the ham. (Fig. 2.) In this case the cyst is evidently a hollow, fusiform tube, consisting of a transparent and structureless, but well-developed, membrane, containing the worm coiled up, as you see. From the two extremities of this fusiform cyst run off the prolongations. It is very important to ascertain exactly the structure of these prolongations. It is evident that they are tubular, and that their cavity is nearly continuous with that of the sac containing the worm. Not quite so, however, for it can be seen that a membranous partition runs across where the prolongations begin, so that the worm is enclosed in a distinct cavity; and that the prolongations are tubes of much smaller calibre, but were apparently at some previous time connected with the central cavity. Now this central cavity contains a transparent fluid; the worm is, therefore, lying free in the interior of the sac, not connected with its membranous walls; this can be demonstrated by breaking open the sac by a slight pressure between the glass plates. It ruptures, and discharges the worm, which escapes in such a manner as to show that it lay before perfectly free within the cavity of the sac. (Fig. 3.) The worm still remains coiled up, after its escape, and you will usually find much difficulty in uncoiling it sufficiently to examine its structure. No operation in microscopic anatomy requires more patience than this; for its firm folds must be unwound without rupturing any of its parts, in such a manner as to give you a fair view from one extremity to the other. (Fig. 4.) This done, the trichina, at this stage of development, is found to be a worm one twenty-eighth of an inch in length; its anterior extremity or head is tapering and pointed; the body very gradually enlarges as you pass from the anterior extremity towards the middle, and about the middle acquires its greatest diameter, which it retains throughout the rest of its extent, terminating posteriorly in a round, blunted extremity. The alimentary canal runs longitudinally throughout the whole length of the worm, there being a mouth at the anterior or pointed extremity, and an anus at the posterior or rounded end. About the junction of the middle with the posterior third of the parasite, the calibre of the alimentary canal suddenly contracts, then enlarges again, and afterward remains reduced to about one-third its original size. The only other organ visible at this time, is one which occupies, together with the alimentary canal, the posterior third of the worm; an organ apparently tubular in character, rounded at either end, and filled with rather large and tolerably well-defined cellular bodies. This evidently is the sexual apparatus, such as it exists at this time.

The characters which I have given are sufficient to define the encysted trichina as taken from the muscles. Suppose now a portion of muscular flesh, filled with trichinæ in this condition, be taken as food by the human subject or administered to one of the lower animals. On arriving in the small intestine, the worms are found to be perfectly free, for the muscular tissues in which they were imbedded, as well as the cysts in which they were contained, are digested in the stomach, so that within twenty-four or forty-eight hours you find an abundance of free trichinæ in the cavity of the duodenum. At once they begin to increase in size, so much so that very soon, usually by the fourth or fifth day, they have become three or four times as large as before. They have now arrived at the adult condition. At the same time the sexual apparatus, before so incomplete, has become perfect, and the copulation of the sexes takes place. I have myself, on several occasions, found in the intestine of the rabbit the two sexes in copulation, the male fastened upon the female at the orifice of the generative apparatus. The eggs having been impregnated, as the animal is viviparous, the female soon becomes full of the young brood.

In this drawing you see these parts as I have just described them. (Fig. 5.) Instead of the intestine now tak-

ing up the whole of the anterior two-thirds of the body, and a great part of the posterior third, you find that the sexual apparatus is by far the most prominent organ in the interior of the body of the female; and as soon as the young have arrived at the period of development here represented, they begin to move forward to the terminal duct of the generative apparatus. This can now be seen very clearly, running from the ovary forward to a point quite near the anterior extremity of the worm. The young are very numerous. I do not know that it has been calculated how many a single female is capable of producing, but they are probably very numerous. The young, discharged in this way into the cavity of the small intestine, begin to penetrate through its mucous membrane, by a boring process, passing undoubtedly through the entire thickness of the intestinal walls. This causes a great deal of irritation, which is the first symptom of trichinosis. It is usually sufficient to produce a considerable degree of pain and not unfrequently a smart attack of diarrhœa.

After passing through the walls of the intestine, the worms disperse in every direction, and from that time you begin to find them in the muscular tissue throughout the body. There they domicile themselves, and, within a fortnight after the symptoms have begun to manifest themselves in the human subject, you will find them almost everywhere, scattered throughout the voluntary muscles. They are still very small, having increased but little in size during their transit, so that when they first arrive in the muscular tissue they are not more than about 1-140th or 1-120th of an inch in length. They soon, however, become encysted, and then increase very considerably in size. At first, however, they are not enclosed in distinct sacs, but are found contained in the interior of long tubes.

We have already seen that, although the encysted trichina is contained in a sac or cavity of its own, this sac is often connected with prolongations running out from each extremity; and in the human muscle, within the first fortnight of infection, the young worms are found contained in swollen tubes. This is the condition of the worm as it was found in the muscles of the human subject on the thirteenth day of illness in a case which I had the opportunity of examining. The worm, you see, is not free, but is contained in the interior of a tube, swollen or fusiform at the point where the worm lies partly coiled up. The worm is not stationary at this time, but by gentle pressure can be made to move from one end to the other of the swollen portion of the tube. By about the end of the first fortnight its coils assume a considerable degree of regularity, and the worm then reaches that condition which has given it its name of trichina *spiralis*.

We have now described the worm as domiciled in the muscular tissue. The next question is, How did it get there, and what is the nature of this tube which it now inhabits, and which is hereafter to become its cyst? These are points with regard to which some doubt still remains. Most of the German observers are agreed that this tube is a muscular fibre; they believe the worm passes from the intestine to the remotest regions of the body by boring its way through the intermuscular cellular substance; and that if examined on its first arrival there, it is perfectly free; that it then penetrates the substance of the muscular fibre, producing atrophy and degeneration of its substance, until the fibre becomes converted into the tube with prolongations which I have described. On the other hand, it is possible that the worm, instead of working its way through the intermuscular cellular tissue, may also be transported by the circulation; for if it can bore through the walls of the intestine, it can, of course, also penetrate the blood-vessels, and it might thus finally reach the left side of the heart, and be sent with the current of the circulation to every part of the body. However, it is certain that the young trichinæ arrive at the muscular tissue, either by working their way through the intervening cellular tissue or by distribution by the blood-vessels. They very soon present themselves in the interior of these swollen tubes, which may be either capillary vessels that have become plugged, by coagulation of the blood, or by deposit of exuded material excited by the presence of the worm; or may be muscular fibres that have undergone degeneration and atrophy from its presence. Soon the tube containing the parasite suffers a further alteration. An exudation takes place around the worm, so that that part of the tube containing it is shut off from the rest; and the remainder of the tube becomes atrophied into slender, tapering prolongations. After some years these also entirely disappear, and you see only an ovoid sac without prolongations; and finally you may have the cavity of the cyst invaded by a calcareous deposit, as I have already described—the last peculiarity of the degenerated cyst.

Now all these changes in the history of the trichina have been seen in the human subject; the development of the young in the body of the female; their discharge from the mother's body into the intestine; their penetration of the walls of the intestine and dispersion to the muscular tissue throughout the body; their domiciliation in the interior of the tubular cavities, and the change of the tubular cavities into ovoid cysts; the calcification of these cysts; and the quiescent and dormant condition of the worm as the result.

Now to what symptoms does this accident give rise? As I have already said, within the first ten days there is irritation of the intestines. In some instances this irritation is very great; and the greater it is, the more favorable the prognosis, as a general rule. After eating trichinous flesh, the patient generally begins to suffer within the first week, sometimes within two days. Now, if the irritation of the intestine be extreme, so that frequent and abundant evacuations are produced, the chances are very great that all, or nearly all, of the parasites will be discharged from the intestine. If so, the patient is safe. But if the irritation be not very marked, time is allowed for the young trichinæ to penetrate the intestinal walls, and enter the muscular tissue—from the end of the first to the end of the second week. This is the most dangerous period, the second stage of the disease. There is general pain and soreness, and œdematous swelling throughout the muscular system. At the same time typhoid symptoms manifest themselves; the patient is debilitated, his pulse rapid, skin hot, tongue and lips dry, and his general appearance closely resembles that of a patient with typhoid fever.

The passage of the worms into the muscular tissue, and the changes taking place there, are very apt to produce symptoms which result in the patient's death at or before the end of the fourth week. By that time the worms have become completely encysted, and after this the symptoms of irritation begin to disappear. The muscular system becomes habituated, as it were, to the presence of the parasite; and after a while the symptoms all subside; the patient can move his limbs as before, and then considers himself as entirely recovered.

How long may the worms remain in this quiescent condition in the interior of the muscular system? In 1863 Prof. Langenbeck of Berlin was operating upon a patient for a tumor of the neck, situated upon the surface of the sterno-mastoid muscle: in dissecting it off, the fibres of this muscle were disclosed, and it was no-

ticed that their surface was covered with minute white specks. These attracted so much attention, that a portion was excised and submitted to the microscope, when the specks were found to be encysted trichinæ. After the patient's recovery, minute inquiries were made to ascertain at what time he had become infected. The result was that no such attack could be traced to a period less remote than eighteen years before. At that time, viz., in 1845, the patient, with several associates, was serving upon a committee of inspection of the public schools. After the inspection in a certain district, the committee partook at the village inn of a lunch, consisting, in part, of ham. Very soon after, all the members of the committee were taken sick with symptoms similar to those which we now know to be attributable to trichinosis. Two of them died, and the signs of poisoning were so marked that the innkeeper was arrested and held under this charge for a considerable time. Although finally the circumstances were not found sufficient for his conviction of the crime, yet they were considered as so much against him, and the prejudices of the community were so excited in consequence, that he was obliged at last to leave the place. On going over all the history of the case, so far as it could be ascertained at that time, it left an undoubted impression on the minds of the medical men who made the investigation, that at the time beforementioned, viz., in 1845, the members of the committee were infected with trichinæ from the ham used for their lunch; that two of them had died in consequence; and that Prof. Langenbeck's patient had recovered, and the worms remained encysted for eighteen years afterward. How much longer they may thus remain I do not know, but I see no reason why they should not last for the remainder of the patient's life. They produce in this condition no interference with the health, and hardly seem to interfere even with the vigor of the muscles.

This was the condition in which the trichinæ were nearly always found, prior to the year 1850, and from this fact it was supposed that the trichina was a harmless parasite. Such are the chief circumstances connected with the physiological history of the worm.

There still remains one question of a very important nature,—How great is the liability of the community at the present time to be infected, and what measures can be taken to prevent it?

The pig seems to be the animal naturally the most liable to trichinosis. He is certainly more liable to this disease than any other animal used for food, neither the sheep nor the ox being subject to it. It has been found in this country, by investigations in Chicago in 1866, that of all the pigs brought to market in that city, one in fifty is infected with trichina. This shows that we are all in danger of becoming infected by the use of pork, unless measures be taken, in preparing the meat, to destroy the vitality of the worms. Smoking and salting will not do this effectually. Only thorough cooking is to be relied on as a safeguard. It is remarkable that most, if not all of the cases of trichinosis in this country, thus far have occurred among the Germans. This is because they have the habit, not otherwise common here, of eating ham, sausages, and even sometimes fresh pork, nearly or quite in the uncooked state. To kill the worms the ham must not only be salted and smoked, it must be cooked, and cooked thoroughly. Now, if you bear in mind that one pig in fifty is infected with trichina, you will perhaps think many times before putting between your lips a piece of pork, or ham, or sausage in the raw state; you will be certain that it is cooked; and not only that, but thoroughly cooked. One of the worst cases of trichinosis that has come under my observation was caused by eating pork chops which were rare or slightly underdone. Now, these chops were probably well enough cooked on the outside; but on the inside they were red and juicy, and the danger was precisely the same as if the patient had taken the meat entirely raw. In order to destroy the vitality of the trichina the meat should be subjected to a temperature of 212° F. Now, if you boil a ham for half an hour, or even an hour, you do not necessarily subject all parts of it to this temperature. In the central parts of the ham the temperature will not rise to that point unless the boiling has been long continued. I speak of this particularly, as it is a very important matter. A temperature of less than 160° F. does not destroy the trichina. As shown by direct experiment, therefore, a piece of trichinous meat, any part of which has not been raised to or above this point, is just as dangerous as if it were taken in the raw state.

These are the chief points of importance in regard to the trichina and trichinosis. The disease is fatal enough, frequent enough, and revolting enough to induce us to take all possible measures to prevent it, and I do not think anything is sufficient for this but a personal examination of every piece of pork, ham, bacon, or sausage used as food, to see that every part of it has been subjected to a thorough cooking process.

One other point still I should like to speak of. We have seen that the disease shows itself occasionally in the human subject, but very frequently in the pig. Now, how is it, under these circumstances, that the continuance of the species of trichina spiralis is provided for by nature? We have here an animal that arrives at maturity in the intestine of the human subject. In that situation the female bears living young in consequence of the individual having eaten pork filled with the encysted and quiescent trichinæ. So long as these remain encysted and quiescent in the pig's muscles they remain practically undeveloped and practically sexless. This flesh is eaten by the human subject. In the intestines of the human subject the worms are set free, the females are impregnated and bear young, and these scatter themselves throughout the body. Now, when these young have, in their turn, in the human subject arrived at the period of quiescence, how are they ever to get back to the intestine of a living animal, and so become capable of continuing their species?

I presume that the mode by which the race is continued is this: Suppose we start with the pig infected with quiescent and sexless trichina. This pig is butchered. You know that butchering establishments are the abundant resort of rats, which feed upon the refuse scraps of meat, and of course these after a time become infected with trichina. The worms are developed in the intestine of the rat, and produce living young. These not only infect the muscular system of the rat, but they are also discharged with the fæces. These fæces become mingled with the food of the pig,—an animal, as we know, not very fastidious with regard to his food, and consequently subject to several parasitic diseases,—and thus the round of development of the trichina is completed. Again, its perpetuation is provided for by a similar round between the cat and the mouse. The mouse becomes infected by feeding upon refuse meat, and the cat by devouring the mouse or rat. We have therefore the natural history of the animal embracing in each case two different phases, in one of which it undergoes an active development, in the interior of the intestine, while in the other it assumes the quiescent form, becoming encysted in the substance of the muscular system.

There are other points of considerable interest with regard to the rapidity with which the human subject may be infected, the great number of persons who may become infected by eating the product of a single slaughtered animal, and the degree of fatality attending the disease. Enough, however, is known to convince us that the affection is a very frequent one, and liable to be exceedingly fatal, or if not fatal, to produce prolonged and exhausting disease.

Much would be effected if all pork offered for sale in the market could be subjected to inspection; and this has been done in some parts of Germany; pork being liable to infection not only with trichina, but also with cysticercus, producing tape-worm in the human subject. Such inspection would undoubtedly prove very useful. Still it would not afford complete protection, unless carried out with an amount of detail which would in all probability prove practically unattainable. The only absolute protection, therefore, must be that exercised by the individual for himself. He must see that he never uses for food any kind or preparation of pork in any form not so thoroughly cooked as to destroy every possible vestige of parasitic life.

Progress of Medical Science.

Remedy for Whooping-Cough.—An experienced practitioner, in an article published in the *Canada Medical Journal*, says that the following prescription for whooping-cough is the best he has met with: ℞. Ammon. bromid. ʒj; acid. hydrocyan. dil., ♏xx; tinct. sem. stramonii, ♏.xx; water and syrup, ℥iv. M. A teaspoonful three times daily to a child two years old will often relieve in twenty-four hours. Two or three grains of the bromide of ammonia may be given three times daily.

Treatment of Vaginismus.—Of more than 100 cases of vaginismus that have fallen under the observation of Scanzoni (*Detroit Review of Medicine*), he has been completely successful in the treatment of all to which he was able to give his personal attention, without in a single case having recourse to the knife. The first condition of success is complete sexual abstinence; for the first three or four days a tepid sitz bath should be used night and morning; warm local bathing with aq. Goulardi, or the same applied with lint, several times a day. Defecation must be regulated, and friction from motion carefully avoided. After a few days the sensibility of the parts will be so much allayed that a solution of arg. nitrati x.-xx. grs to ℥j. may be applied with a brush, After about eight days' continuance of this treatment, vaginal suppositories of ext. belladonna and cocoa butter may be placed behind the hymen and in contact with it, daily. These remedies, either alternately or simultaneously, must be continued until every trace of inflammation has disappeared, and the normal sensibility is restored. Generally two or three weeks will be required to attain these objects. Then dilatation must be commenced, but for this purpose sponge tents are useless. A graduated series of milk-glass conical specula are best adapted to this object. After the first slightly painful attempt, the patient will generally be able to introduce it with facility, and it may be allowed to remain from one-half to one hour. Even when the hymen remains it will not be necessary to incise it, as dilatation can be effected without recourse to that measure. At first the dilator may be used every two or three days, then every day, or twice a day, for two or three hours, gradually increasing the size of the dilator until the object shall have been attained. Sitz bath, belladonna, and pencilling with nitrate of silver may be required from time to time, and the cure is usually completed in from six to eight weeks.

Bromide of Potassium for the Sleeplessness of Infants.—M. Montard-Martin (*Med. Times and Gazette*), in a communication to the French Academy of Medicine on "Some Applications of the Bromide of Potassium to the Medicine of Young Infants," observes that sleeplessness, alike mischievous to the infant and wearying to the nurse, is one of common occurrence. The child does not seem otherwise ill, but has a very great insufficiency of sleep both by day and night, or only at night. Where a great variety of means has failed to remove this sleeplessness, the bromide succeeds in a remarkable manner, and M. Montard-Martin adduces in his paper, several cases in proof. His conclusions are—1st. The bromide of potassium given in small doses (from five to twenty centigrammes), is very well tolerated by young infants. 2d. By its sedative action it cures *insomnia* in these cases. 3d. Administered to infants suffering from the accidents of dentition, such as restlessness, *insomnia*, cough, etc., it frequently relieves these, and it is probable that its employment, regulated with prudence, would sometimes prevent the occurrence of convulsions. 4th. It should not be administered to infants when suffering from diarrhœa. 5th. In certain exceptional cases in which the nervous erethism is predominant, its action is prompt and decisive.

A New Test in Albuminuria.—A new method for finding the proportions of albumen in urine is described by M. Hoebler (*Centrallblatt für die Medical Wissenschaft*). The suspected urine, after having its specific gravity taken, is boiled together with an infusion of sugar-cane in a test tube, and then treated with enough acetic acid to precipitate the albumen. The liquid is then filtered, and its specific gravity is again taken when it has reached the same temperature at which it was first taken. Multiply the difference between the two specific gravities (water = 1) by 210, and we have the percentage of albumen present. In thirteen such examinations the average error was only 0·023 per cent., while in Vogel's optical test the average error is 0·046.

Sciatica Treated by Acupuncture.—T. J. Stevens, M.D., of Charlestown, Mass. (*Boston Med. and Surg. Journal*), records an interesting case of sciatica in which acupuncture was successfully tried. A male applied to him laboring under unilateral sciatica, which had proved rebellious to ordinary remedies. Twelve fine steel needles were inserted in the direction of the nerve along the ischio-trochanteric fossa as follows: After stretching the skin tense with the left hand, the needle was seized by its head and passed about half an inch through the skin, in a boring or rotatory manner. All the needles were successively applied and left in place half an hour, when they were extracted in the same rotatory manner. Then the patient was requested to get up and walk, and to his astonishment, he rose and walked with ease and without pain. The cure was radical.

A Case of Petrifaction.—The following singular case of petrifaction was recently published in the *Criminal Zeitung* of Dec. 4th, 1868.

Amos Broughton, of Wayne County, Iowa, died six years ago, and recently on disinterring the body it was found in a state of petrifaction, like a marble statue. Every feature was perfect, and the whole face life-like. The weight of the statue was 400 pounds. Broughton weighed just before death 200 pounds.

BROMINE IN CROUP AND DIPHTHERIA.—In the *Journal des Connaissances Médicales*, of Paris, Dr. Ozenam publishes an interesting paper on the treatment of diphtheria, attended with the formation of adventitious membranes. The specific which he uses is bromine, which has an elective action on the pharynx, the *velum pendulum* and the larynx. The bromine first hardens the adventitious membrane, and then reduces it to dust. It destroys contagion as well as chlorine, and prevents the spreading of epidemics. As a preservative from epidemic diphtheria, Dr. Ozenam administers from ten to twenty-five drops of bromine in the course of the day in sugar and water, in the proportion of from twenty-five to fifty grammes of the latter per drop.

SPINA BIFIDA CURED BY INJECTION.—In the *Bulletin de Thérapeutique*, January 11th, 1869, M. Roux relates a case of *spina bifida* cured by injection. The child was a girl, six weeks old when first seen by him, and of young and healthy parents. The general health was good; the head well formed, and entire integrity of all the organic functions of the body was manifested. In the gluteal region there was, however, an enormous congenital tumor, extending from the extremity of the sacrum to lower third of the thighs, measuring about 8½ inches from the top to bottom posteriorly, and 6 inches in the transverse diameter. It was covered by skin of normal color and thickness, except in a single point corresponding to the coccyx, which bore the appearance of a cicatrix, resulting from the application of caustic potash. The tumor was hard and tense, these qualities increasing when the child cried or stood upright. It could be somewhat diminished in size by firm compression. In the supine position an obscure sense of fluctuation could be detected. In the sitting posture, the tumor served as a cushion elevating the pelvis, and rolling beneath like a full bladder. Passing the finger from above downward in the sacral groove, a plate of bone could be felt which grew narrower and terminated in a point. The lesion was evidently hydrorachis. The diagnosis was confirmed by a further careful examination after withdrawing a portion of the liquid with a fine trocar. Next day the child was placed across the knees of an assistant with the back upward. The fingers of a second aid pushed back the skin, and were applied exactly to the abnormal opening in the spine. The tumor was then completely evacuated with a small trocar. While a third assistant then included the entire bed of the tumor between the index and middle fingers of each hand, so as to prevent all possibility of the injected fluid penetrating the spinal canal, M. Roux injected an ounce (30 grammes) of the following liquid: Distilled water, 3 x., tinct. of iodine, 3 ijss., iodide of potass., gr. xv. The liquid was allowed to remain for five minutes in the sac, and then fully withdrawn by a syringe, so that not a single drop remained. After the operation (9 o'clock, A.M.) the child was pale; uttered cries of pain, and refused to nurse before 7 o'clock in the evening. Then the suffering abated, the color returned, and the child slept tranquilly a portion of the night. In forty-eight hours the tumor regained a fourth of its size, and became hard and painful. In three days, it began to diminish again, and on the 12th day, it was about the size of a walnut. The child's health being excellent, it was then removed from the hospital. Five weeks later the cure was complete, and now, three years after the operation, no trace of the malady can be detected. M. Roux attributes his success to the observance of the following precautions: 1st. Using an injecting fluid of moderate strength. 2d. Completely evacuating the sac so as to permit the medicated fluid to retain its full activity. 3d. To the precautions employed to prevent not only the iodized solution from entering the spinal canal, but from even coming near the canal. 4th. To the complete withdrawal of the injected fluid, with the double aim of preventing too great a degree of inflammation and the transportation of the remains of the solution into the opening of the canal by the retraction of the tissues.

SNEEZING AFTER THE ADMINISTRATION OF CHLOROFORM.—M. Horteloup recently called the attention of the Société Impériale de Chirurgie to a result of the action of chloroform not yet observed. A woman aged 23 years, with an abscess of the recto-vaginal septum, was chloroformed. This was followed by a series of paroxysms of sneezing (55 in one hour), although the patient was respiring pure air at the time. Similar successions so frequently repeated might, he thought, after certain operations, rupture the sutures or induce serious accidents.—*Gaz. Hebd.*

CONSOLIDATION OF FRACTURE OF THE NECK OF THE FEMUR.—M. Prestat reports (*Gaz. Hebd., No.* 1) the case of a woman who fractured the neck of the femur at the age of 86 years. In two months and a half consolidation was complete, and the patient walked, as before the accident, without the help of a cane.

MYOME OF THE SAPHENOUS VEIN.—Dr. E. Aufrecht reports (*Kirchow's Arch.*, 44 *Bd.* 1, *Heft*) a unique case of musculo-fibrous tumor occupying the vessels. The patient, Carl Nitte, a soldier, aged 23, observed at the age of nine, at the centre of the internal face of the right ankle, a tumor of the size of a bean, which gradually acquired the size of a large nut, but without becoming painful. He desired its removal on account of its continued growth. The tumor, the skin over which was perfectly normal, was situated between the internal malleolus and the tendon of the posterior tibial muscle. It was of firm consistence, distinct from the adjacent tissues, but less movable from above below than laterally, and in the former direction was continuous with a cord which extended for three or four centimetres above, and six or eight centimetres below, and which followed the antero-posterior movements of the tumor. A connection of the tumor with the saphenous vein was suspected, but could not be ascertained definitively. December 30, 1867, Dr. Pesch removed the tumor. On incising the integument, the impossibility of separating the growth from the cords which prolonged it was evident. It was divided at the two extremities. A jet of venous blood spurted from each of the cut ends, but was readily controlled by compression. The wound healed by second intention, and the patient left cured on the 15th of February, 1868.

The tumor, slightly flattened, presented a length and breadth of 2·5°, and a thickness of 1·5°. The subcutaneous surface was irregular, but a degree less so than its other face. Towards the centre of the tumor was a small cavity containing blood, and at the two orifices at which it had been continuous with the vein, a fine probe was readily introduced and showed the cavity to be fusiform. The superficial portion of the tumor was composed of connective tissue crossed by numerous elastic fibres, and the parts within presented the characteristic appearances of myoma.—*Gaz. Hebd., No.* 1.

PHYSIOLOGICAL ACTION OF CICUTINE.—MM. Pélissad and Jolyet communicate (*Gaz. Méd. de Paris*, 1869, *No.* 3) some experiments made with this article on dogs, the result of which shows that cicutine is like curara, a poison to the motor nerve, the irritability of which it destroys, leaving perfectly intact the muscular contractility.

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THE NEXT MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

THE selection of New Orleans as the place for the coming meeting of the American Medical Association will doubtless prove to be productive of a great deal of good in reconciling much of that difference of opinion which, we are sorry to say, has been so mistakingly fostered by many of our Southern brethren during and since the war. The President-elect, Dr. Wm. O. Baldwin, of Alabama, as a representative of the Southern medical men, gave, in his address of acceptance, an idea of the feeling of the majority of our brethren of that region, which, under the circumstances, we must receive as authoritative.

"I am sure," said he, "that most of you have not failed to observe the very meagre representation which this Association has had from the Southern States since the close of the late war. This has probably been due to several causes, to only one of which I desire to allude. I will not disguise from you, gentlemen, the fact that there are many physicians in the South disposed to hold themselves aloof from your councils. The resolution passed at your meeting in 1866, offering again the hand of fellowship to your Southern brethren, owing to the peculiar condition of our country at that time, and the fact that but little of the medical literature and news of the North circulated with us, met the eyes of but few, and there are still among us those who feel that your hearts are yet steeled against them, and who believe that, notwithstanding some formal declarations to the contrary, most of you, in your private feelings, have not yet been able to rise sufficiently above the prejudices of the past to enable you to receive them in such manner as to make their presence here either agreeable to them or profitable to the Association. Looking to this conviction of theirs, strengthened by the fact that they are still under the cloud of the nation's displeasure, and denied the political rights to which they esteem themselves entitled, they have felt that it would be both undignified and unmanly to present themselves at your doors for admittance to your councils, or to offer to affiliate with you until they can come as your peers in all things—in political and social rights, as well as in scientific zeal and devotion. So far as my observation has extended, I am sorry to know these sentiments have prevailed with many, and it is but frankness in me to say so."

It is in view of this state of feeling that we congratulate the Association on its present selection of the place of meeting, and of its President. The doubt as to any lack of that pure, impartial, and kindly feeling characteristic of a noble scientific brotherhood, must now be dispelled. There will now be no misunderstanding of the real motive which has actuated the Association in taking the step referred to. The physicians of the North, as a body, after years of separation from their brethren of the South, can have the opportunity of renewing old friendship and enjoying a hospitality characteristic of the good old times. Dr. Baldwin foreshadows the welcome in the following unmistakable manner:

"For myself, and for those whom I represent, I grasp with unaffected pleasure the hand which you have so gracefully and magnanimously offered, and I hope, and believe, this sentiment will meet a ready response from all our brethren of the South. *Let us again be united as friends and brothers.* Ignoring past and present political differences, let us exhibit to this distracted country an example of forgiveness and toleration worthy the emulation of a great and noble people. Let the bond which we acknowledge here bind us in all portions of this broad land as a sacred brotherhood, engaged in a common toil with one mind, one heart, and one purpose. Let the place annually selected for our meetings be our Mecca. There let us meet with harmony of sentiment for thorough organization, for connected and concerted action, without which no great science or art can ever attain its highest perfection. Exacting from each other only the qualifications necessary for honorable membership, let us there mingle in the sacred precincts of our humane profession, and join hands and sympathies in the strengthening influences of association and fellowship; and as we lay fresh offerings in the temple of a noble science, and build new fires on her altars, let us cherish in our hearts the ennobling sentiment of brotherly love."

It is to be hoped that under the circumstances the meeting will be well attended by Northern delegates. We admit that the distance will be very great, and that the expense will not be inconsiderable, but delegates from the South have travelled equally far to attend sessions in Northern cities. A great deal of the expense of travelling has, by the praiseworthy exertions of sub-committees of arrangements in our different large cities, been much reduced over nearly all the principal routes. For a merely nominal outlay, a very interesting and profitable trip, in a very pleasant time of the year, can be made.

The meeting itself, irrespective of place and associations, is destined, from the amount of business on hand, to be both interesting and profitable. A large number

of committees are expected to report on many interesting subjects, and much edifying discussion will, in all probability, be evoked.

As the Association, like others of its sort, will be naturally pressed with much business, it is desirable to concentrate everything that comes before it into the smallest possible space as to time. To serve the required end, all papers intended for publication in the Transactions should be presented to the Society and sections in abstract, that the salient points may be properly discussed by different parties interested in the subject. The abominably tedious recital of statistics of long cases should be entirely dispensed with; all that is necessary for discussion is the statement of general results. If figures are necessary to prove the points, they can be printed; then they can be read by at least two individuals, the author and the proof-reader. The same thing may be said of the major part of many other papers; they can better bear to be printed in full in the Transactions than read entire to a party of victimized searchers after truth. Let it be hoped that there will be few papers of this sort.

So much then in anticipation of the meeting. We would urge, in conclusion, all those who can go to avail themselves of the opportunity, and to such as cannot, we will try to present a faithful and full record of the doings, which shall be specially prepared for our own columns.

We are pleased to notice that the *Humboldt Medical Archives*, a monthly journal of great merit, published in St. Louis, has ceased to be a party organ and has dissolved its connection with the college with which it has so long been identified. The editors, Drs. Whithall and Clark, express their determination to make it thoroughly cosmopolitan in character. With this change of policy the periodical will assuredly increase its usefulness. If every other journal could under like circumstances act accordingly, the opinions of the medical press would carry with them a proportionate degree of weight.

Two cases of death from chloroform have recently occurred in this city, in which every apparent care was taken to guard against such a result. We doubt not that there are yet to be found, despite many similar cases that are constantly occurring, many enthusiasts for this anæsthetic who are still ready to affirm that it has no direct agency in causing death. Such, however, can no more be convinced of their error than was the Indian who missed his way:—"Indian no lost! only wigwam gone!!"

The State of Minnesota has shown a very commendable example to many of her older sisters in passing a law to protect her people from empiricism and imposition in the practice of medicine and surgery. The bill is so much to the point, and so commendable in its provisions as regards protection of the rights of legitimate medicine, that we give it entire, taking the occasion to commend it to the special attention of all parties concerned:

Sec. 1. That it shall be unlawful for any person, within the limits of said State, who has not attended at least two full courses of instruction, and graduated at some school of medicine within the United States, or of some foreign country, or who cannot produce a certificate of qualification from some State, district, or county medical society, and is not a person of a good moral character, to practise medicine in any of its departments, or perform any surgical operations for reward or compensation, or attempt to practise medicine, or prescribe medicines, or perform any surgical operation for reward or compensation, within the said State of Minnesota.

Sec. 2. Any person living in the State of Minnesota, or any person coming into said State, who shall practise medicine, or attempt to practise medicine, in any of its departments, or perform, or attempt to perform, any surgical operation upon any person within the limits of said State, in violation of sec. 1 of this act, shall, upon conviction thereof, be fined not less than fifty dollars, nor more than one hundred dollars for such offence, and upon conviction for a second violation of this act, shall, in addition to the above fine, be imprisoned in the county jail of the county in which such offence shall have been committed, for the term of thirty days; and in no case wherein this act shall have been violated, shall any person so violating, receive a compensation for services rendered: *Provided*, nothing herein contained shall, in any way, be construed to apply to any person practising dentistry exclusively.

Sec. 3. No person who fails or neglects, on or before the first day of October, 1869, to file in the office of the Clerk of the District Court of the county in which he resides or keeps his office, a sworn copy of the certificate or diploma of some school or college of medicine, that he has attended at least two full courses and graduated at such school, or a sworn copy of a certificate of qualification of some State, district, or county medical society, shall be permitted in any court of this State to sue for or recover any compensation for his services, advice, or attendance as a physician or surgeon; and the failure to file a sworn copy of such diploma or certificate, as above provided, shall be *primâ facie* evidence that he has not attended or graduated at any school of medicine, or received a certificate of qualification from any State, district, or county medical society.

Sec. 4. Any person studying medicine with a preceptor, qualified as in this act above provided, shall have three years from the commencement of his term of study to comply with the provisions of this act.

Sec. 5. This act shall take effect and be in force from and after the first day of October, 1869.

We are indebted to Dr. Samuel Wiley, of St. Paul, Minn., for the above copy of the bill. It was passed March 4, 1869.

During the past year seventeen thousand persons were married in New York city; of deaths, twenty-three thousand four hundred and forty-three; of births, thirty-one thousand.

One hundred and forty-nine bodies were brought to the city *Morgue* during the year, of whom seventy-eight were recognized by their friends.

Reviews and Notices of Books.

THE ANATOMY AND HISTOLOGY OF THE HUMAN EYE. By A. METZ, M.D., Professor of Ophthalmology in Charity Hospital Medical College, Cleveland, Ohio. Philadelphia: Published at the office of the *Medical and Surgical Reporter*. 1868. Pp. 184.

AN IMPROVED METHOD OF EXTRACTION OF CATARACT, with Results of One Hundred and Seven Operations. By J. R. WOLFE, M.D., F.R.C.S.E., Ophthalmic Surgeon in the Aberdeen Royal Infirmary, &c. Pp. 71. London: John Churchill.

ON AN IMPROVED METHOD OF EXTRACTING IN CASES OF CATARACT, with Reports of Fifty-four Cases Operated upon in Succession. By CHARLES TAYLOR, F.R.C.S.E. Edinburgh: Oliver & Boyd.

ENUCLEATION OF THE EYEBALL, Section of the Ciliary Nerves and Optic Nerve, Some Unnecessary Causes of Impaired Vision. By B. JOY JEFFRIES, A.M., M.D., Ophthalmic Surgeon Massachusetts Charitable Eye and Ear Infirmary, &c. Pamphlet. Boston: David Clapp & Son.

DER INTRAOCULARE DRUCK UND DIE INNERVATIONS-VERHÄLTNISSE DER IRIS. Von Prof. Dr. KARL STELLWAG VON CARION.

INTRAOCULAR PRESSURE AND THE INNERVATION OF THE IRIS. By Prof. CARL STELLWAG VON CARION. Vienna: W. Braumüller. Pp. 100.

DIE INTRAOCULAREN GESCHWULSTE, nach Sigenen Klinischen Beobachtungen und an Anatomischen Untersuchungen. Von D. H. KNAPP, Professor der Ophthalmologie an der Universität zu Heidelberg.

A TREATISE ON INTRAOCULAR TUMORS, founded upon the Author's own Observations and Anatomical Investigations. By Dr. H. KNAPP, &c. Pp. 238.

WANT of space in which to give the above-named monographs an especial notice which is perhaps their due—at least of some of them—has compelled us to associate them together. The amount of literature which ophthalmic science is showering upon us is getting to be something appalling. The practitioner certainly can only have the time to read them with the fingers, if at all.

Dr. Metz's work is a compilation of the results of the labors of recent histologists, which were only to be found in ophthalmological journals and monographs. Certainly this is a good work, if well done, and it is well done in this case; a full list of authors consulted is given, and we cannot conceive how the author can be justly considered as in the remotest degree guilty of plagiarism, as one of our hypercritical Western reviewers intimates. The engravings are very good, the descriptions are usually plain, and we do not know where a better compendium of what is known on the anatomy of the human eye can be found. The description of the crystalline lens seems to us particularly clear and accurate. If we were disposed to be captious we might point out obscurities of expression here and there, but in view of the honest work here done, we can scarcely say anything but words of commendation, and leave these trivial faults to the care of a second edition.

The amount of energy that has been directed towards a modification of the old flap extraction of cataract, if applied to a different object might have accomplished much for our science and art. But soon after all the modifications, beginning with Schuft's execrable spoon operation, passing along through Mooren's preliminary iridectomy, Jacobson's large flap, Critchett's modification of Schuft's spoon, Pagenstecher's extraction of the lens with the capsule intact, down to Graefe's modified linear extraction, and Taylor's extraction by linear flap, we do not see, heretical as the statement may seem to most ophthalmologists, that we are much further advanced than when the lens was removed by the old flap operation. Graefe's statistics are a little better, but the little we have seen of the modified operations in America seems to show us that accidents are more common than ever before; for instance, vitreous escapes in a greater percentage of cases, and this we can but consider as one of the gravest of accidents. Still the whole question is yet on trial, and the time for the rendering of judgment has probably come. We venture to predict, however, that the circle will soon terminate at the original flap, leaving the various modifications, such as iridectomy, small incision, corneo-sclerotical incision, use of a smaller knife, &c., to be employed in exceptional cases. Mr. Taylor's pamphlet reads like the honest report of a thoroughly good ophthalmic surgeon. His operation is very like Graefe's, although it seems to have been conceived and executed by him without any previous knowledge of Graefe's ideas.

Dr. Wolfe's pamphlet is more pretentious than Dr. Taylor's, embracing, as it does, the history of cataract extraction from David down, together with some remarks on couching and glaucoma, and all this in 74 coarsely printed pages. He considers the latter disease a "result of hyperæsthesia and spasmodic irritation of the sympathetic within the orbit," and iridectomy as a genuine neurotomy, strictly analogous to the removal of a part of the portio dura in tic douloureux.

We fail to see that the new method of Dr. Wolfe is after all a new method. An iridectomy is made some six weeks before the operation. That is Dr. Morrin's plan. A conjunctival bridge is left. *Desmoines* used to do this, and it has been done for years in this country by various operators, and so it is through all the stages of the "pen method." We cannot regard Dr. Wolfe's brochure as a very valuable addition to our stock of knowledge on cataract. The binding, and the forty pages of Churchill's advertisement incorporated in the volume, have given it an assuring appearance which its contents by no means justify.

Dr. Jeffries' papers are excellent compilations on the subject of which they treat. The one on Enucleation of the Eye-ball is particularly worthy of attention. We do not know where the same amount of valuable information on the subject can be found in such a condensed space. We regret that Dr. Jeffries, enjoying as he does great opportunities from his official position as surgeon of the Boston Infirmary, does not give us more of the results of his own experience. If, for instance, he had supplemented Dr. Cohn's investigations as to the refraction of the school children of Breslau and other cities in Europe by some examinations as to the state of things in the same regard in the schools of Boston, and in the University of Cambridge, we should have had a paper much more valuable than the compilation on "some unnecessary causes of impaired vision." The aversion to original investigation is proverbial, but the ophthalmologists of our country have not the ordinary excuse for neglecting such work—a want of time and opportunity—and we expect better things of them in the future than we have had in the past.

Prof. Stellwag has given us an exhaustive memoir on intraocular pressure, a subject of vast importance to the ophthalmic surgeon. The influences of the external and internal ocular muscles, of filtration and secretion of vascular pressure, or pressure of the column of blood, are fully considered. Prof. Stellwag considers that the elasticity of the sclerotic coat, or of

the tunics of the eye, is the regulator of the intraocular current of blood, and that the intraocular pressure does not vary in a normal condition of the eye-ball. Graefe's experiments on cholera patients are quoted. Under the most careful examination he did not recognize any hardness of the globe, although the arterial lateral pressure (seitendruck) was very much lessened on account of great loss in the quantity of blood, and weakness of the heart's action.

Prof. Stellwag instituted some experiments which confirmed those of Graefe. Patients in the advanced stages of phthisis pulmonalis, or other similar affections, were examined by the former. The radial pulse was very weak and compressible, but still there was no diminution of the tension of the globe. Nor was there any increase in tension in the case of extremely plethoric persons, or others where the radial pulse was extremely full and powerful. We have no space for the complete analysis of Prof. Stellwag's pamphlet, but must be content with commending its study to those who wish to know more about glaucoma and kindred subjects.

Prof. Knapp's book consists of an exhaustive report of numerous cases of intraocular tumors, with a supplement containing some remarks on other forms of tumors than those reported, which may occur within the eye-ball. In the introduction, the author calls attention to the rare opportunities for an early diagnosis of intraocular growths, and advises their removal as an imperative necessity, in order to prevent the spread of the morbid materials.

"The early diagnosis, which is possible, justifies extirpation in an early stage of the neoplastic growth, while the thick, unflexible fibrous capsule of the eye-ball excludes the growth for a long time and effectually from the adjacent soft tissues, and more certainly allows the complete extirpation of the tumor than is the case in other parts of the body."

Five cases of glioma of the retina are recorded in the first section of the book. The second section contains general remarks on the pathology of these growths. Dr. Knapp considers that intraocular tumors may be divided into two great classes, glioma of the retina, and sarcoma of the choroid. It is probable, however, judging from a case lately seen by us, that sarcoma arising from the iris may occur.

Eight cases of sarcoma of the choroid are reported in the second part of the book, followed by the pathological anatomy of choroidal sarcoma.

We are glad that this valuable contribution to our knowledge is to be published in English at no very distant day.

We have just received Soelberg Wells' treatise on the eye, but we must defer a notice of it until a later period.

A PRACTICAL TREATISE ON BRIGHT'S DISEASES OF THE KIDNEYS. By T. Grainger Stewart, M.D., F.R.S.E. New York: Wm. Wood & Co. 1868.

IT must be confessed that if the medical world is not well informed about renal affairs in our days, it will not be for lack of authors who have experience and wisdom to aid them in setting forth what is known. Within the past three years particularly, even if we confine ourselves to the English language, works upon this subject have followed each other so rapidly that we scarcely have time to read and digest one before another finds its way upon our table. Dr. Roberts was followed by Basham in his third edition, then came Gant in his second edition, next Dickinson early in 1868, to be succeeded by Beale in a third edition; our author follows, completing the list "to date." Dr. Stewart adopts the following classification of "Bright's Diseases," as he calls them.

1. The inflammatory form, of which he describes three stages; *a*, that of Inflammation: *b*, that of fatty transformation; *c*, that of atrophy. 2. The waxy or amyloid form, of which also there are three stages; *a*, that of degeneration of vessels; *b*, that of secondary degeneration in the tubes; *c*, that of atrophy. 3. The cirrhotic, contracting, or gouty form.

Thus it will be seen that, in common with Dickinson, he follows the three-fold arrangement of Virchow based upon the chief anatomical elements of the organ. But he differs from Dickinson in the minor divisions of his subject. Thus a third, or atrophic stage of nephritis, is described; a special chapter, each, is devoted to the consideration of the "*Combined Waxy and Inflammatory Disease*," the "*Combined Cirrhotic and Inflammatory Disease*," and a new disorder, "*Acute Atrophy of the Kidney, a Condition sometimes coexisting with Acute Atrophy of the Liver.*" We feel that it would have been more logical, and more conducive to clearness, to have incorporated the descriptions of the above combined forms with the text, each in its proper place. When the inflammatory condition coexists with the waxy or cirrhotic, it is almost invariably secondary to them, and due, either directly or indirectly, to the contraction which characterizes the latter stages of both.

The "atrophic" stage of nephritis and the "acute atrophy," demand more particular notice. The former is illustrated by three cases, which may be supposed typical in their way, and such as caused the classification which we are invited to accept. It is proper, therefore, to look at them somewhat critically.

CASE XII., a female, æt. 62, under observation not more than 13 days. *She* stated that she had been healthy until eight months before, when she became dropsical. The left ventricle of the heart was much hypertrophied, the aorta atheromatous, and in part calcareous. The liver weighed only 28 oz., and was congested; the spleen small. Kidneys, together, 9 oz., granular. Cortical substance infiltrated with fatty sebaceous-looking matter, and in a state of commencing atrophy. Many of the tubules were fatty, and some in a comparatively natural state.

CASE XIII, a female, æt. 30, came under observation in April, 1865. The previous summer she had caught cold, in consequence of which her urine diminished in quantity and became high colored, and she had dropsy. The heart was found hypertrophied left side, and dilated right side; the valves free from disease. The liver 38 oz., capsule thickened. Kidneys, together, 7 oz., surface granular, capsule peeled off readily. The cortical substance pale, fatty, and particularly atrophied. Many of the tubules contained fatty matter within the epithelial cells.

CASE XIV., male, æt. about 30. Heart hypertrophied and dilated, without valvular disease. The kidneys about the natural size, granular, mottled and opaque; the capsule somewhat adherent. Cortical substance relatively somewhat diminished in size. Some of the tubes found full of dark, fatty matter, while some had natural epithelium. This case was under observation more than a year. At the beginning he is said to have had nephritis.

The first two of these are entitled "*Nephritis fatal in third stage.*" But there is wanting the first sign of acute disease in both. There is nothing to show that they had not, both of them, had granular disease for half-a-dozen years before death. The word of a pauper of 62 years cannot be received as evidence in such a case. Neither does a diminution and high color of urine, after a cold, indicate any such serious state. As to the out-

break of dropsy, it is well known that trifling causes are sufficient to bring it about when disease has long been present. On the other hand, we have very decided evidence of long standing disease of a character frequently associated with granular degeneration of the kidneys, to the hypertrophy of the left ventricle, and cirrhosis of liver, marked in both cases. It will shortly appear that *microscopical* appearances *described* in all of these cases are entirely consistent with a perfectly normal ante-mortem state. The appearances to the eye are those of the granular condition complicated with more or less fatty change. But in the last case we are informed by the author that the patient had previously suffered from nephritis. This case alone will be sufficient to make his point strong if it can be traced from a declared acute inflammation to this granular state. We have already found that the term nephritis has been too loosely used. Let us examine a case in an earlier stage, —that of inflammation.

Case IV. is given as "*Acute Nephritis following Erysipelas, fatal on the second day, complicated with pneumonia, pericarditis, &c.* A female, æt. 44, when nearly recovered from eczema, was seized with erysipelas of face and head accompanied by great nervous excitement. On the sixth day her urine became albuminous, and she died on the seventh day of the disease. The kidneys were of *a natural size, not congested.* The cortical substance had a peculiar homogeneous appearance. Surface smooth. No free exudation seen in any of the tubes, but the epithelium in many parts granular and swollen. "No desquamation of epithelium at any part could be detected."

Desquamation of the epithelium is the *sine quâ non* of acute nephritis, as described by all accepted authorities. How then can Dr. Stewart venture to obscure the subject by "multiplying words without knowledge?" We state unhesitatingly that "acute nephritis" was not fatal on the second day, and that the *simple congestion* of her kidneys had probably nothing whatever to do with her death. If this is nephritis, according to the author, we turn back to Case XIV., assured that the early attack could not have been other than a febrile exacerbation of an already existing granular disease.

With regard to the cardiac lesion above noticed, we quote from Dr. Dickinson: "It is very rarely that simple hypertrophy of the left ventricle is associated with any form of renal disease, excepting granular degeneration. I have never seen an instance, though I am not prepared to say it never happens." If this third, atrophic, stage of nephritis is altogether dropped, as we think it should be, and placed under the head of the cirrhotic form, the classification of our author is at once brought into striking parallelism with the writer just quoted.

The existence of an "acute atrophy of the kidney" is inferred from observation of two cases. *The first* is as follows: A woman in the sixth month of her fifth pregnancy was taken sick a fortnight before death. She began to vomit yellow matter, to be jaundiced, and constipated. On the morning before death she vomited a large quantity of blood, became comatose, and passed fæces involuntarily, vomiting blood almost incessantly. At the autopsy, 31 hours after death, the skin was yellow, the blood dark and fluid, all internal organs jaundiced, lungs congested, and liver reduced to 23½ oz. Throughout its substance were numerous ecchymoses. Gall-bladder contracted, containing mucus. Kidneys somewhat enlarged, together 10½ oz., cortical substance dense and pale, epithelium to some tubes in a state of cloudy swelling, here and there loaded with fat granules, in some filled with dark matter, in some parts the tubules were full of dense homogeneous granular matter containing numerous oil globules.

Second case, given as an instance of the disease when confined to the kidneys. A female, æt. 22, of abandoned habits, taken suddenly ill, when far advanced in pregnancy, with symptoms referred to metritis. On the morning of the fifth day she was delivered of a putrid child, by induced labor, and died that evening, conscious to within a few moments of death. Urine voided but not examined. Autopsy 40 hours after death. Decomposition rapidly advancing, blood dark and fluid, liver natural size, soft and flabby, kidneys small, 6¾ oz. together, flabby, congested, containing numerous ecchymoses in the cortical substance. That part rather diminished in size. Epithelium of tubes found enlarged and cavity occupied with free exudation. The cells were in some parts opaque, of a brownish color, and full of dense granular matter obscuring the nuclei; in others they were represented by groups of oil globules. The stroma was somewhat enlarged, as well as the connective tissue corpuscles, from which it appeared that the lesion was not confined to the tubules.

In relation to the first case we ask, where is the evidence of acute atrophy in the kidneys weighing together 10½ oz.; and in relation to the second we would express the opinion that the decomposition, extravasations, and generally fluid state of the blood, are enough to account for all the microscopic findings. If the stroma was increased in proportion it certainly makes it highly probable that the atrophy was of a chronic order, and not the production of a five days' disease. Permit us once more to refer to Dickinson, since we can go to none so good in these matters, with relation to the intelligence to be gained from the microscopical state of the tubules in both the above cases. That author states, of the post-mortem condition of the healthy kidney, that "The appearance is liable to much variation consequent upon the differences in the amount of blood contained, and a delusive appearance of congestion often arises from staining of the tissues by blood which has become unnaturally fluid, as the consequence of febrile disease or sudden death. The epithelial cells are sometimes charged with oil globules, a change at one time looked upon as the root of all evil. They have been variously described as 'granular,' 'opaque,' 'crumbling,' 'disintegrated,' 'nebular,' 'degenerate,' &c. It will be shown that each of these conditions may be present independently of renal disease." "The cells rapidly become granular. They crumble and disintegrate, the outer portions breaking away from the nucleus. They separate from the basement membrane of the tube, and fill the cavity with uniform packing in which the outlines of cells and nuclei may be recognizable, or may have altogether disappeared in a granular débris." This is entirely accordant with the results of several original observations, and we therefore must deny that Dr. Stewart has proved the existence of this "acute atrophy."

In relation to the plates, it is quite noticeable that the connection of the tubules with the malpighian tufts is shown ten times in the three plates which illustrate the parts.

Aside from these points the work is a valuable and trustworthy contribution to the literature of the subject.

Lakes Containing Sulphate of Ammonia.—Prof. J. Ville finds that the waters of certain lakes in Tuscany contain a large quantity of sulphate of ammonia.

Mortality from Snake-Bites in India.—During the past year, one thousand one hundred and twenty-seven persons died in India from the effects of snake-bites.

Correspondence.

RENEWAL OF PRESCRIPTIONS.

To the Editor of the Medical Record.

Sir—Will you allow me to criticise Prof. Ordronaux's very excellent article on the "Renewal of Prescriptions" which appeared in the Jan. 15th number of your journal? I look upon this question as a very important one, and one which is not capable of a very easy or satisfactory solution, from the fact that the practice has been allowed, by the profession, to proceed uninterruptedly for so many years, and to become universal, and thus apparently to become endorsed by a tacit consent. Any attempt now to interfere with the custom is interpreted both by the apothecaries and by our patients as an unwarrantable and illegal interference with their respective rights. And yet it appears to me that nothing can be clearer than the equity of the case, whatever the law may be. To digress a moment from the discussion of the *merits* of the case, let me say that as soon as my attention was called to the importance of the subject by the public action recently initiated by the profession, I directed my apothecary to renew no prescription for any patient a month after its date, without my consent; and he strictly adhered to my request. What was the result? He came to me one day in a state of considerable consternation, and informed me that some of his best customers were in a state of great excitement about it, and extremely indignant, and threatened to withdraw their patronage entirely, and talked about a collusion between the doctor and apothecary in order to extract more money from them, &c., &c. He said it would ruin his business. So I gave up the fight for the time, and ordered him to renew prescriptions indefinitely for the patient for whom they were originally intended, but for no other. Some of those who had been refused a renewal, I met and explained the matter to them, and with good effect; and if I could have talked a half hour with each one concerned in the matter, I have little doubt that I could have settled it satisfactorily with the great majority, but the thing is impracticable. The subject must be acted upon by the whole profession, not by individuals. Mine was a mere individual experiment, and I give you the benefit of it. I expect eventually to repeat it with quite a different result.

To return to the *question* at issue. Dr. Ordronaux takes the ground that there is a parallelism between ordinary *letters* and *prescriptions*, and that the legal decisions which have been rendered with regard to the former, and to which he refers by title, may be, "with slight modifications," applied to the former; and, as a consequence, he admits, nay insists, that an apothecary may compound a prescription an indefinite number of times and for an indefinite number of years, for a patient; only that he has no right to do so indiscriminately for the public. Here, it seems to me, the profession should assume higher ground, and deny the parallelism. What is a prescription? Prof. O. defines it as consisting of two parts, "*the paper and the formula.*" I dare say this is a good *legal* definition, and perhaps may be accepted by the profession generally. But I deny that the *paper* has essentially anything to do with it; any more than the physician's coachman, who might be *told* by the doctor to go to the apothecary, and get a dose of rhubarb for his patient, has to do with the rhubarb. We might as well say that the patient acquires a "right of property" in the coachman, who is the accidental vehicle of the prescription, as in the paper, which is made, for convenience merely, the usual vehicle. A prescription is simply a direction or advice given to a patient to do this or not to do this or that, or a direction, often verbal also, to the apothecary to put up certain drugs for the patient. In former times, in England especially, it was customary for physicians to have dispensaries of their own, and be their own dispensers of drugs; and the directions were frequently verbal, perhaps generally. In country practice here, the physician often has his own dispensary, and dispenses his own medicines entirely; here no prescriptions are written. What, then, becomes of the patient's legal right to the prescription "which he has paid for"? Will any one contend that he has the right to demand from the physician, whenever he meets him, or once a month, or a year, that he should give him the formula again, though it be for the same malady, and without a fee? Or suppose a physician prefers, as a rule, to do that which all of us do now and then,—give a verbal direction to the apothecary to prepare a mixture for the patient. Will it be contended by any one that such patient has the right to demand of the apothecary, a month or a year after, that he should call to mind the composition of the prescription, and put it up for him again? And yet it does not appear to me that I am overstraining the parallelism between the cases. I contend that the *writing* of the prescription is not a necessary part of it; as we have seen, it is merely a convenience; and the paper might be, and sometimes is given, not to the patient at all, or to a friend, but to any convenient messenger, and is merely a notification to the druggist that the physician wishes him to do so and so. It is, in fact, a letter to the apothecary, when the physician chooses this means of communicating his wishes to him. Being a letter, I agree with Prof. O. that "the receiver has an undoubted right of property in (it), even as against the sender." And apothecaries generally do keep these letters, as they should. But Dr. O. says that the *patient* acquires a right of property, at least in the paper, and "may bring an action of detinue for it against any party who withholds it from him." This assertion conflicts, I respectfully suggest, with his previous assertion that the *receiver* has the right of property. Now, the paper being addressed to, or sent to the apothecary, usually in cities by printed name, *he* is the receiver, and the patient is only the *carrier*. I think it is very important, in the outset of this discussion, to get rid of the idea, which seems to be quite general, and which Prof. O. seems to regard as a matter of course, that when a patient comes to a physician, he comes to buy a prescription, a piece of paper containing certain valuable matter, as he would go to a book-store to buy a pamphlet on any subject about which he needed information, as for instance concerning a disease which he might fancy himself to be afflicted with; and having paid for the prescription, as for the pamphlet, he acquires the same right to it, to use it at all times and in any way for his own benefit. He does no such thing, as it appears to me, and acquires no such right. He may, and often does, receive nothing *tangible* at all; and yet he pays the same fee as if he received a page of written directions. The *writing* is an unnecessary and incidental circumstance. The patient asks advice, directions, perhaps, as to his mode of living, change of air, of occupation, and scores of things for which medicine may not be required at all. This advice is the *prescription* for which he pays. If the physician, being at a distance, addresses him a letter on the subject, then he acquires a right to the paper, of course, but in no other case. The apothecary, having received a letter or a prescription from the physician for a patient, "does

not violate," says Prof. O., "any one else's rights in recompounding it for *him*." The apothecary knows full well that the directions which he has received, through the patient, refer to the time when they were given, and that it is not intended, by the physician, that they should be made to apply to a different date, and probably to a different condition of the patient, or possibly to some other patient. They have been in the habit of repeating prescriptions on their own responsibility, and for the convenience of their patrons, for so long a period, that both druggist and patient have come to regard as a *right* what, in fact, is only a *usage*, and one which, for the good of both physician and patient, ought never to have been permitted. It appears to me that it is full time to surrender our rights when a legal decision compels us to do so, and not hasten to forestall public opinion and legal enactment by surrendering in advance.

It is expedient that some action should be taken in this matter, but *what* action, or in what particular way action is to be taken, is not so easy to determine. Prof. Ordronaux would go before the legislature, and, by a dexterous manœuvre, rather than by an open and candid appeal for a just protection, would seek the required remedy. He might succeed in this way, but a *failure* would weaken our cause in the future. An appeal to the legislature, as against apothecaries or patients, would, without some previous education of the public on the merits of the case, be almost sure to fail. It would be preferable to bring the matter before the courts in a test case. A decision of the Supreme Court in favor of the physician, on the merits of the case, as they have been stated in this paper, *might* be obtained. But if Prof. O. is correct in *his* interpretation, an appeal to the courts would be worse than useless.

I imagine that few physicians, if any, in city practice, are aware of the extent to which their practice is injured by this abuse, on the part of apothecaries and patients, of prescriptions. A physician gives a prescription, and gets a dollar or two for it. If he is particularly skilful or happy in his effort to relieve the case, it may be so much the worse for his pecuniary success, paradoxical as it may appear. For the patient continues indefinitely to use it, not only for the kind of attack for which it was prescribed, but for all *similar ailments*, as they *appear* to him; not only this, but he takes great pleasure, or *she*, I should say (for it is our female patients who are most addicted to this abuse), in recommending it to her friends, and those friends to theirs; and the apothecary is besieged with applications, sometimes by letters from distant parts of the country, to furnish the medicine, or copies of the prescription. And thus the physician injures, unwittingly, not only his own practice, but that of many others far away. I am now saying what I know to be the case. Patients here send to a friend in New York to go to a drug-store, one of the first in the city, and get such a copy, giving the number. The druggist immediately sends it without a question, whether it is for the original patient or not. In *country* practice, where we know what is going on in the community, this evil appears in all its glaring enormity, and it is an evil which does not only fall on the physician. Only recently, a prescription for a powerful anodyne was given by my assistant to a female, which relieved her so promptly that her husband, being troubled one day with something which he fancied to be similar, procured the medicine; and thinking that a strong man needed a larger dose than a weak woman, took it, and the physician who prescribed it, being fortunately near at hand, was enabled to save his life, which was in jeopardy. But it would be superfluous to multiply such instances in an article intended for medical readers, as they have all seen too many such cases of folly and thoughtlessness.

In conclusion, I must beg pardon for obtruding my individual opinion before the profession at such length, but when such preposterous assertions are made by the apothecaries as at their recent convention, and such concessions by so distinguished an authority in our ranks, on medico-legal questions, backed by your own approval, Mr. Editor, it is expedient that the opinions of the profession generally should be known.

Yours respectfully,

M. D.

Cold Spring, N. Y., April 1, 1869.

INNOCUOUS LOOSE WIRE LIGATURES IN ANEURISM.

To the Editor of the Medical Record.

Sir—Without delay I beg you will permit me to correct an impression that a short paragraph in the "Record," of March 15th, 1869, under the heading of "Progress of Medical Science," is calculated to produce. The paragraph alluded to is that bearing the title "Occlusion of Arteries in their Continuity by partial closure with Innocuous Ligatures." P. 33. You there represent the author of certain reported experiments with this kind of ligatures applied to the arteries of healthy sheep, as saying, that he "related a case in which he ligated the femoral artery of a patient by this method, for popliteal aneurism. The pulsation of the tumor ceased on the *third day*. The wound to the line of the integument, was healed on the *fifth day*. On the tenth day the patient was walking about." Now I put the question to you, a perfectly disinterested party, if that statement does not convey the impression that this was a demonstrative and a successful case of the application of the silver wire, in the manner this author advocates, to the diseased human artery? It will certainly, it seems to me, be so regarded. A more dangerous conclusion for the surgeon, and for the patient, could hardly be imagined; as the following history of this same case will show:

The patient (who happened to be one of my own) was a stout, short Irish laborer, of about 25 years of age. A popliteal aneurism of some three or four months' existence, so far as could be ascertained, disabled him, and for reasons which I need not detail, it was thought a proper case for treatment by ligation rather than any other means. Favorably impressed with the idea of the loose wire ligature, I determined to try it in this case; so, after the artery was exposed, Dr. Howard, at my invitation, applied the silver wire ligature according to his own views of the matter, it is presumed, inasmuch as I assured him that he would be held responsible for the result. As he drew the ligature, I held my finger upon the popliteal pulsating tumor, and whatever may have been said, or may hereafter be said as to the degree of occlusion effected in this case by the wire, pulsation certainly disappeared from that part of the tumor upon which my finger was placed, and from a great portion of it, before he relaxed his hold of the silver thread he was tightening. A few minutes later, however, when the patient had been put to bed, and arterial action had become restored, pulsation became very manifest in some part of the tumor, and as I had occasion to watch the case very closely and carefully for about two weeks after the operation, I regard it as my duty to state that, with the exception of a single examination, about five or six days after the ligature was applied, I never examined the popliteal re-

gion, and the much diminished tumor, that I did not find more or less marked pulsation.

And this temporary result, of absence of pulsation, was probably produced by very firm elastic pressure, by means of bandages, instituted for the very purpose of arresting circulation through, and pulsation in, the aneurismal tumor. Where, therefore, the idea originated, that the pulsation of this popliteal tumor ceased on the third day, I cannot say; it certainly did not originate in any actual occurrence.

There was a little suppuration of the wound of the incision, not however attributable to the presence of the wire, and it did not close till about the *tenth day*. On the twelfth day, or thereabout, the patient had to be removed to a distant part of the city, but his transportation was accomplished easily, he helping himself out and in the carriage, and mounting a considerably long flight of stairs. All this time his leg, knee, and the thigh, up to the point of the incision, was kept firmly bandaged over a popliteal compress, but still the pulsation went on. In disobedience to orders, the patient not only went down and up stairs daily, but on about the fifteenth or sixteenth, a little more or less, he walked several blocks in the streets. The day after this tour, he suddenly felt an acute pain in the posterior and lower part of the thigh, soon saw that the corresponding part was swelling, and finally saw the tender cicatrix of the wound, made for tying the femoral, burst open, and blood gushed forth in a large stream.

Hemorrhage from the incision after ligation for aneurism was therefore present in its usually frightful form. After some three repetitions of the hemorrhage, it was thought proper to tie the artery above the profunda; and the choice of the ligature being left to me, I applied an *unwaxed* silk cord, double the size of the common suture silk. It was applied at a point less than an inch below Poupart's ligament. This ligature for the first time arrested the pulsation in the popliteal tumor, which was at the time of the occurrence of the hemorrhage reduced to less than half its original size. At the time of this second operation, the old incision was laid open and examined with the view of ascertaining the source of the bleeding, but it was not found. On account of a pulsationf elt below the site of the wire, Dr. Howard was inclined to believe that the hemorrhage came from below the ligature. The progress of the case was good, till about the fifth or sixth day after the application of this ligature, when signs of suppuration at the locality of the popliteal tumor appeared. The temperature of this limb was not changed by the first ligature, and never more than two degrees by the second one. The history of this case is soon finished. The aneurismal sac broke down and discharged its contents in the form of sanious pus, and finally the patient died of hemorrhage from this suppurating cavity, in a rather sudden manner, the bleeding which produced the fatal collapse taking place in the night, during the temporary absence of the attendant.

No post-mortem unfortunately was obtained. Death took place in this case, fifteen days after the application of the silk ligature, which still hung from the wound, with not the slightest redness or suppuration along its course, the incision having closed by adhesion about it. I mention this fact because of its bearing upon the question of noxiousness of ligatures, a cardinal feature in the note you publish. Having thus placed the history of this case before your readers, they will be able to judge of its merits as a *successful (?)* result of the application of the *loose* silver wire ligature. With no favorite operative procedure to advocate, nor any theory to defend, the reflections I may present upon the points you publish, as claimed advantages of the loose silver ligature, I trust, may be accepted as from an unprejudiced party.

The first claim is that "No lesion is inflicted upon the coats of the artery."

How that claim could be advanced with a large number of arteries thus treated before the author, every one of which exhibited the results of more or less extensive inflammatory action in and about the artery at the seat of the ligature, is unaccountable. All traces of the artery indeed at that point "had completely disappeared by absorption" in some cases. If that is not to be regarded as the result of a very serious lesion of the artery, I am at a loss for a pathological state indicative of serious arterial lesion. Having examined many specimens of arteries treated by this method, I was struck with the uniform fact that the artery was more or less completely destroyed at the point of the ligatures. The pathology, therefore, of the specimens does not support the claim that no lesion is inflicted upon the artery by such a ligature. Besides such evidence, a simple experimental illustration will serve to convince any one how totally without foundation is such a claim. Take a thin elastic tube and attach it to a faucet whose stream will fill the tube. Then constrict this tube at any given point to *one-third* of its normal diameter by a wire tied about it. Then let on the water by turning the stop-cock of the faucet, and again shut it off, and so keep on doing forty to seventy-five times the minute, watching meanwhile the expansion and contraction of the tube at all points between the faucet and the wire, and its fixed unyielding retention under the wire, against which hydraulic force is continually drawing the external surface, and we probably get a true idea of the manner and the degree of injury inflicted upon the coats of an artery by the silver wire ligature, which only partially closes it. We can then understand why, in the healthy artery, an inflammatory action of the vessel should be promptly set up, and that occlusion and obliteration should follow with more or less rapidity. But are we authorized to believe and to teach that a diseased artery treated in like manner would behave in the same way? By no means. Unfortunately, it too often occurs that the arteries operated upon in an aneurismal limb are more or less involved in the diseased condition which has promoted the aneurism, and that, as a consequence, they do not take on the occluding inflammatory action of the healthy vessel. To this long-since settled principle, undoubtedly, is to be attributed the frequent occurrence of hemorrhage from the region of the application of the ligature in aneurismal cases. I presume that no surgeon believes or attempts to advocate the doctrine, that a common thread tied around the artery of the healthy sheep, as was the silver wire in the experiments alluded to, would have less promptly and safely obliterated the vessel. As to the suppurative process which is said to be inevitable for the subsequent discharge of the noxious thread, nobody, to my knowledge, regards it as attended by danger of any kind, and least of all, danger of hemorrhage, providing the artery be healthy. The interesting experiments of Dr. Levert throw much valuable and—so far as the results upon the healthy animal can be applied to the diseased arteries of man—practical light upon this subject. (See *American J. of M. S.*, Vol. 4, First Series, 1829, p. 17.)

He shows by repeated experiments, that precisely the same results follow the tight metallic ligature applied to the healthy artery, that are found to follow the loosely applied one; so that, so far as the arteries of animals are concerned, the claim for the loose ligature, that it inflicts no injury upon the vessel, must be abandoned. Unfortunately, neither Levert's experiments

on the arteries of the dog, nor the recent ones on the arteries of the sheep, afford any new light as to the results of the use of these substances in the ligation of the arteries of man for the cure of aneurism. As relates to the arteries of the aneurismal human subject, it may, it seems to me, be questioned, whether the tendency of the wire, especially when loosely applied, to cut its way through the artery, may not much more than counterbalance its alleged freedom from tendency to excite suppuration, and thus render the thread the preferable ligature. The bearing of this query upon the subject under consideration will be seen under the light of the following case. Dr. Brodhurst, of London, tied the femoral for aneurism in its lower portion, in March, 1867, with a silver wire, drawn tight enough to arrest pulsation in the tumor, but *without injuring the coats* of the artery. (Precisely the condition produced in the case I have related.) The wire was cut short, and the wound closed with sutures. The tumor consolidated, and the wound was nearly healed by the seventh day. On the tenth day, however, he suffered two hemorrhages from the opened cicatrix. The artery was then cut down upon and tied higher up by *two silver* ligatures. But another hemorrhage coming on two days later, a silk ligature was put on still further up, too late, however, to save the life of the patient, who died from the exhaustion, produced by this last loss of blood, in twelve or eighteen hours after. An examination of the parts after death found the artery encircled by two silver wires and a thread. The lower or first applied wire, however, was found to have *cut its way through the artery*, only about the eighth of its calibre remaining intact.

In the vessel below this wire, very *little clot was formed, or evidences of effort at repair*, so that a full stream of water could be injected through it past the wire. As the vessel was firmly closed above, it was therefore clear that the fatal hemorrhage had been from below the first wire ligature, which had cut the artery nearly off by a slow process illustrated by the elastic tube experiment. Although this patient was only forty-six years of age, there was a general atheromatous disease of the arteries. (*Lancet* for Sept. 22, 1867.)

If we may be allowed to judge from the fact that the limb, in the case I have related, was found to possess a temperature considerably above its fellow before the first ligation—that it was hardly perceptibly reduced by the first ligation; that even after the second one was applied above the profunda, its temperature was hardly reduced below the sound limb, and that fatal hemorrhage finally took place from the popliteal vessels—the whole arterial system of this limb was in a state of abnormal development, not to say disease, which an examination, like that had in Dr. Brodhurst's case, would probably have demonstrated to have been either atheroma or other degeneration.

An examination would also have shown, no doubt, as it did in Brodhurst's case, that the wire had cut off the artery, and that no inflammatory repair had guarded against such a catastrophe.

Now I wish to be distinctly understood as not advancing these two cases, Brodhurst's and my own, as evidence against the silver or any other metallic thread, but simply as evidence, and evidence which no prudent surgeon can ignore, that none of these ligatures secure him from the well-known danger of hemorrhage after operations for aneurism; and still further, that the silver ligature is not shown in actual practice to afford any more security than the silk or other thread. There is indeed reason to believe that the increased inflammatory action which an occluding silk or other thread may excite, is more likely to produce a closing and obliteration of the artery than any metallic wire, and therefore that such ligatures are preferable. If this be true, the second claim for the loose silver ligature, that by it "all causes of suppuration are avoided," is rather an objection to it than a recommendation, so far as its application to aneurismal arteries is concerned. As to the third claim, that when the loose wire is used "there is no cause for subsequent disturbance of the wound," we have seen how thoroughly the two wounds, in which it has been applied with moderate tightness only in the human diseased artery, have been disturbed; but without reference to these untoward results, the experiments of Dr. Levert, above referred to, instruct us that when the silk or hemp thread is cut short and left behind, the wound heals by adhesion, and that the suppurative process by which the knot is surrounded and slowly carried to the surface, is of very trifling consequence.

If there is any truth in the fourth claim, that "the parts beyond are not deprived suddenly of their accustomed supply of blood, the collateral circulation increasing as the former supply diminishes," when the aneurismal artery is only partially closed by the silver wire, it is the most dangerous feature in the whole practice—as what I have heretofore said relative to the expansive hydraulic force which, under those circumstances, would continually thrust the coats of the vessel against the wire, will illustrate. This advantage, however, I believe to be chimerical. And as to the fifth claim, that when the loose wire is used, "there is nothing to prevent complete healing of the wound by first intention," Dr. Levert demonstrated forty years ago, as we have seen, that practically this statement is true also of silk, hemp, and even gum-elastic threads; and if I mistake not, Dr. Peaslee, in more recent times, has demonstrated the same thing. In conclusion, I beg to be allowed to say, that on account of a constitutional fault, perhaps, I cannot believe a thing which is incapable of either mathematical or practical demonstration, and that as a consequence, when statements and doctrines unsupported by either of these methods of demonstration are presented to me, I incontinently combat them. I contend only for the truth, and, when surgery and medicine are involved, for the safety of humanity. To me it therefore seems that for the truth of science, and for the safety of mankind, you should publish the following "claims":

First. *Whatever may be the behavior of any kind of ligatures when placed about the healthy artery of man or beast, it is a very dangerous rule in surgery to expect them to behave in the same manner when applied to the artery for aneurism, or in any state of disease.*

Second. *No kind of metallic ligature is shown to afford greater security against hemorrhage, when used for tying arteries in aneurism, than silk or thread ligatures.*

Third. *So far as experiment teaches, we may cut short the silk or hemp thread, and close the wound over the knot, with no apprehension of important suppurative action as a result, as is advocated for the metallic ligature; and there is reason to believe that in aneurism these threads possess an advantage over the wire.*

Fourth. *That the doctrine that any wire which produces the occlusion of an artery does not inflict any injury upon it, is self-contradictory and without foundation.*

Fifth. *That whether the ligature be applied tightly or loosely in healthy or in diseased arteries, the result to the artery is the same.*

STEPHEN ROGERS, M.D.
249 W. 42d St.

DEATH OF BARTHEZ.—The death of the celebrated Dr. François Barthez, at the age of 67, has been recently announced.

New Instruments.

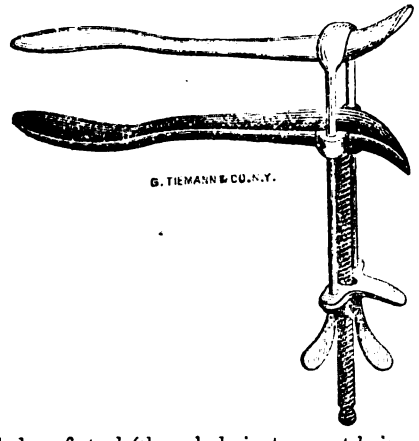
INSTRUMENT FOR EXAMINATION OF THE RECTUM AND DILATATION OR RUPTURE OF THE SPHINCTER ANI.

By J. S. THEBAUD, M.D.

OF NEW YORK.

The object of this paper is to place on record in your journal an instrument devised by me as an anal speculum, and by means of which the sphincter ani may be dilated to a condition of temporary paralysis, or if the force be continued, to its complete rupture.

The instrument manufactured by Messrs. George Tiemann & Co., 67 Chatham street, of which the accompanying plate is a correct representation, consists of



two blades of steel (the whole instrument being manufactured of the same metal), capable of being separated by means of a screw to an extent of three inches or more, and by the same process slowly returned to its closed condition, at the will of the operator.

Should the distension by the instrument not be sufficient to produce rupture, this is easily accomplished by the finger pressing against the already distended sphincter, either anteriorly or posteriorly.

Every surgeon, in attempting the rupture of the sphincter ani, must have experienced the same difficulty as myself in depending upon the power of the thumbs or fingers, and hence the reason of my devising the above instrument, by means of which no such difficulty can possibly occur.

In order to perform the operation, the instrument (closed), represented by the engraver inversely, is seized with the left hand, by the larger end of the left blade, and introduced into the rectum sufficiently far for the sphincter to grasp the blades behind the curve; then with the right thumb and forefinger the screw is turned slowly to the desired extent, and as stated before, if this is not sufficient to produce rupture, the operation may be completed by the finger pressing gently, anteriorly or posteriorly, against the already distended sphincter.

The operation being completed, the instrument may be slowly closed by reversing the action of the screw, and gently withdrawn from the rectum.

March 25, 1869.

Removal of Urinary Calculi.—Dr. Paul F. Eve has operated more than one hundred times for the removal of urinary calculi.

Medical Items and News.

Excursion Tickets from New York for the Meeting of the American Medical Association.—The following information is communicated by the sub-committee of arrangements of the American Medical Association for this city and Brooklyn: Rate of passage per New York and New Orleans steamer of Livingston, Fox & Co. (office, 88 Liberty street), *via* Havana, to a Delegate of American Medical Association, either way, will be $40; rate of passage to New Orleans *via* Savannah (between Savannah and New Orleans by rail), $48.50. By former route a steamer will leave April 24; by latter, April 27.

A company of six or more delegates can each obtain from Mr. J. B. Yates, basement, 229 Broadway, Railroad Excursion Tickets from New York to New Orleans and New Orleans to New York for $70.

Time of passage by first route 8 or 9 days.
" " " " second " 5½ "
" " " " last " 3½ "

Death of Dr. Alexander H. Stevens.—At a special meeting of the New York Academy of Medicine, held April 2d, 1869, for the purpose of paying a tribute to the memory of the late Alexander H. Stevens, M.D., the following resolutions were unanimously passed:—

Resolved, That the decease of Alexander H. Stevens, M.D., late President of the New York Academy of Medicine, on the 30th day of March, 1869, at the advanced age of 80 years, is a fit occasion for the members of the Academy to express the high estimation in which he was held, and their deep sorrow at his departure.

Resolved, That, during his long and useful professional career, in which he attained the highest rank as a learned and accomplished instructor, and a skilful and successful practitioner of the healing art, his uniform honorable conduct and great moral worth, his untiring zeal for the public welfare, and humane and sympathizing bearing, ennobled our calling, and will ever endear his memory to our hearts.

Resolved, That the removal by death of one whose mature professional experience and eminent skill have so long been made available for the relief of his suffering fellow-creatures is to be regarded as a great public loss.

Resolved, That a copy of these resolutions, duly authenticated by the signatures of the President and Secretary of the Academy, be communicated to the family of the deceased, with the assurance of our heartfelt sympathy in their bereavement.

Resolved, That these proceedings be published in the daily papers and medical journals to be designated by the President and Secretary.

Resolved, That when we adjourn, we adjourn to attend the funeral of the deceased.

H. D. BULKLEY, M.D., President.
E. H. Janes, M.D., Secretary.

The Commencement of the Women's Medical College of the New York Infirmary was held at the Theatre of the Union League Club on the evening of the 1st inst. The hall was filled with a very intelligent audience, and on the stage were many distinguished friends of the movement for opening to women a broader and more thorough education and a wider field of labor. After the opening prayer, the President, Samuel Willets, Esq., spoke of the steady advance which had been made, of late years, in the cause of woman's culture and freedom, as seen both in public sentiment and in legislation.

Dr. Emily Blackwell then read a report of the work of the Infirmary and College for the last year. They celebrated upon this occasion the completion of the first winter term of lectures. As the curriculum of instruction required the attendance upon three such courses of lectures, in addition to daily recitations and practical clinical work, there were not as yet any graduates to add interest to the occasion. The history of the past year was felt to be one of decided progress in carrying out the purposes for which the institution existed. Thirteen years ago, Dr. Elizabeth Blackwell, sister of the speaker, had appealed to the public to assist in the establishment of a medical school for women, in connection with this Infirmary. The few women who, in this country, were the pioneers in the movement of educating women as physicians, obtained their own education upon essentially the same footing as young men. As their number increased, however, more opposition and prejudice were encountered, and it began to be recognized that an institution especially intended for the education of women alone was needed, and one, moreover, in which the practical advantages of a hospital could be united with the usual didactic instruction of all medical colleges. Out of this idea grew the collegiate department of the New York Infirmary, the first hospital and dispensary formed by women and for the medical education of women. From the first, it was the endeavor of the officers connected with it, to keep prominently before the students' minds the practical aspect of their occupation. This insured its success, both as an institution for the relief of the sick poor, who formed the majority of the patients, and as a clinical school for the students, who began to be made familiar, from the very beginning of their studies, with the varied phases of disease. As a charity, from 250 patients treated by the Infirmary in its first year, the number had increased to 7,200 in the year just ended; in the thirteen years of its existence more than 70,000 patients had received assistance. As a means of medical education, many of the most able women physicians in the country owed their success greatly to the clinical advantages extended to them in this Infirmary during their term of student life. The character and extent of the medical work performed by these undergraduates had been an excellent test of their fitness for the profession. Fifth Avenue knew less of them than that region of the city east of Second Avenue, where hardly a woman could be found who did not know about "the doctoring ladies in Second Avenue." After dwelling, at some length, upon the struggles that had been made here by women to gain facilities for clinical study in the same institutions with young men, and upon the fact that this had been found, for the present at least, impracticable, the speaker stated that to New York City was due the credit of first throwing open to women, as medical students, the field of observation afforded in the various city charities; and that New York physicians first gave a cordial and efficient support to the efforts of women in this direction. The speaker next alluded to the course of instruction in the school, and among other remarks, stated that the professors had endeavored to give peculiar prominence, in their teachings, to the subject of hygiene, as it was daily becoming more evident, to the public as well as to the medical profession, that the work of the physician of the future would lie quite as largely in carrying out the laws that secure health and prevent disease, as in curing disease. Dr. B. dwelt upon this thought at some length, and concluded with an exhortation to the students before her to look upon their occupation not as a mere means of keeping soul and body together, but as a pursuit worthy of their best energies, one calculated to call out their greatest intellectual efforts, and one in which they could discharge the noblest duties to society.

Owing to the sickness of Prof. Samuel B. Ward, Prof. G. H. Wynkoop acted as substitute, and delivered an address to the students, counselling them never to lose sight, in their studies, of the connection between Physiology and Pathology, and concluding with a few words of advice as to the spirit which should always animate them in their professional work.

Addresses were then made by Judge Kirkland, who recounted some incidents in the progress of the institution, as he had watched it from its very foundation; by Geo. W. Curtis, Esq., who spoke eloquently of the general aspects of the question of woman's culture and woman's work; and by Prof. Willard Parker, who dwelt especially upon the importance, and particularly to women, of the thorough study of the subject of hygiene.

The exercises were varied by music from Thomas's orchestra.

The New York Orthopædic Dispensary.—This Dispensary at 1299 Broadway, is under the immediate care of Charles F. Taylor, M.D., and Wm. E. Vermilye, M.D., who have made a specialty of this branch of surgery for several years past.

We learn from the first annual report for 1869, that 206 patients have been received into the institution since its organization two years since. The total number of out-door patients treated in the same period amounted to 1,271. 125 patients are now under treatment. Of these, 106 are afflicted with Potts' disease of the spine.

The remaining members of the medical staff are as follows: Assistant Surgeons—Doctors Thomas M. L. Chrystie and David C. Carr. Consulting Surgeons—Willard Parker, M.D., Wm. H. Van Buren, M.D., C. R. Agnew, M.D., John T. Metcalfe, M.D., and Ernest Krackowizer, M.D.

A Superior Liquid Glue.—A liquid glue, far superior to mucilage, may be made by dissolving glue in an equal quantity of strong hot vinegar, adding a fourth of alcohol and a little alum. This will keep any length of time when placed in closed bottles, and will glue together horn, wood, and mother of pearl.—*Scientific American.*

Loss of the Nails.—Mr. Wilkin, of Staplehurst (*Journal of Cutaneous Medicine*), reports a case of obstruction of the brachial artery from embolism, produced by a fragment of fibrinous clot supposed to be detached from the left ventricle of the heart. The arm became pale, cold, and shrunken; it was pulseless; and as it recovered its strength the nails of the fingers were shed.

International Medical Congress.—Proposals for holding an international medical congress at Florence, in September, 1869, have been issued by Professors Palasciano, of Naples, and Cantalioni, of Rome. Statutes for its management and a programme of the questions to be discussed have been laid down.

Sir Charles Bell's Discoveries.—In the number of the *Journal of Anatomy and Physiology* for November, 1868, may be found a copy of the original pamphlet styled "Idea of a New Anatomy of the Brain," with letters, now for the first time published, written by Sir Charles Bell to his brother George Joseph Bell, between the years 1807 and 1821.

The Aconoxylon.—Dr. Paul Niemeyer, of Magdeburg (*Gazette Méd. de Paris*), recommends a solid wood stethoscope, made of deal, which is eighteen times superior to air for conducting sounds. This, the

"aconoxylon," is the only stethoscope constituted according to the law of physics, and is superior to Laennec's cylinder.

Medical Vacancies in the Regular Army.—At the date of the Surgeon-General's report (October 20th, 1868), there were forty-nine vacancies in the grade of assistant-surgeon.

India-Rubber Sponge.—An artificial sponge, made by filling India-rubber, in a fluid state, with bubbles of gas, and then allowing it to harden, has just been introduced in England and this country. It seems capable of being made into pads for fracture, hernia, etc., and is very elastic.

Poisoning by the Fumes of Hydrocyanic Acid.—Dr. Francis H. Weismann, of this city, reports a case of poisoning by the fumes of hydrocyanic acid. The usual characteristic symptoms presented themselves as in cases of swallowing the poison. An emetic of tart. antim. et potas. and ipecac. was promptly administered, followed by cold affusions to the head. The patient was a manufacturer of almond-soap, in which the poison forms an ingredient. He promptly recovered.

Mount Sinai Hospital.—During the past year 418 males and 188 females were received as patients in this institution; 743 out-door patients were also treated; 214 were natives of Prussia. Acute rheumatism, scabies, pulmonary tuberculosis, pneumonia, and gastric catarrh were the chief diseases there. The directors congratulate the members of the Hospital on having obtained from the city a lease of land situated on Lexington avenue, between 65th and 66th streets, for the erection thereon of a suitable building for the object and purposes of the institution. The medical and surgical staff attached to the hospital are as follows:—Attending Physicians—Drs. Ernest Schilling, A. Jacobi, Samuel R. Percy, and Charles A. Budd. Attending Surgeons—Drs. Ernest Krackowizer, Benjamin J. Raphael, and Herman Guleke. Consulting Surgeons—Willard Parker, M.D., and Thomas M. Markoe, M.D. House Physician and Surgeon—S. Teller, M.D.

Treatment of Diseased Gums.—A writer in the *London Lancet* recommends the following treatment of disease l gums: The teeth should be washed night and morning with a moderately small and soft brush; after the morning ablution, pour on a second toothbrush, slightly damped, a little of the following lotion, and apply it to the affected parts: Carbolic acid, one scruple; rectified spirits of wine, two drachms; distilled water, six ounces. By the use of this preparation, suppurative action is kept under, and the gums get firmer and less tender.

The Last Wonder of the Spectroscope.—The spectroscope, which, since its invention eight years since, by Bunsen and Kirchoff, has contributed so much to the progress of science, was used with signal success in observations of the recent total eclipse of the sun, by English and French parties, in different parts of Asia. By this means the nature of the protuberances on the rim of the solar disc, observed in former eclipses, has been satisfactorily explained. They are found to be columns of incandescent gas, possibly containing hydrogen.

Leeches.—Leeches belong to a group of articulate animals of a division of the red-blooded worm. They have ten eyes around the lips. These eyes are very brilliant, and arranged in the form of a horse-shoe. They have three jaws, forming the three sides of a triangle. Each jaw is armed with teeth capable of piercing the toughest skin. The body of the medicinal leech consists of ninety-six to one hundred ringlets. As they grow the rings increase in size, but not in number. Their colors vary exceedingly, the most brilliant being that of the Australian leech. From official statistics it is found that the value of leeches sold in various parts of Europe, for use in home and foreign markets, aggregates the sum of ten millions of dollars annually, which amount is progressing from the diminished production in those countries themselves, and the consequent increased demand for leeches brought from Australia and other parts of the world. They are transported in clean linen sacks, or packed in clay or earth. Large numbers are lost by heat and confinement.—*Chem. Gazette.*

The Discovery of a Minute Fossil Horse.—Professor Marsh, of Yale College, has discovered in the tertiary deposits of Nebraska, the minutest fossil horse yet obtained. It is only two feet high, although full grown. This makes the seventeenth species of fossil horse discovered on this continent.

A Surgical Prize.—The Surgical Society of Paris has just announced the subject of the Laborie prize (£48), to be awarded in January, 1870:—"Point out, by the aid of clinical facts, the actual value of supramalleolar amputation from the following points of view: 1. The mortality consequent upon the operation. 2. On the different ways of performing it. 3. The usefulness of stumps in the act of walking. 4. The artificial limbs best calculated for these stumps."

Marriage and Leprosy.—A leprous husband prayed before the Bombay High Court for the restitution of conjugal rights, which, it seems, his wife had withheld on the ground that he might infect her. Legal formalities apart, the wife's objection to a great extent was medically invalid, so far as she herself was concerned. As regards her offspring, however, the case is different. A leper seldom infects a partner in the exercise of conjugal rights; this is an ascertained fact. Their progeny are very liable to suffer, though this is not necessarily the case. The decision in favor of the plaintiff is of peculiar interest in Bengal, where every hundredth man or woman is a leper, and where the disease is steadily on the increase.—*Lancet.*

The Discovery of Laryngoscopy.—Garcia, a London music teacher, first discovered in 1854, laryngoscopy. The art was first made practicable by Czermak, of Prague.

Diabetes Cured by Peroxide of Hydrogen.—Mr. J. J. Bayfield (*British Medical Journal*) reports a case of diabetes cured by peroxide of hydrogen. He commenced with half-drachm doses of the ethereal essence of the peroxide, and gradually increased it to three drachms a day.

The Arrest of the Development of Tubercle.—Dr. Henry Cormall, of Belfast, states that the development of tubercle can be prevented by uniformly enforcing the habitual respiration of air not pre-breathed.

Cases of Snake-Bite Treated by Halford's Method.—A correspondent of the *Medical Times and Gazette* reports three cases of snake-bite, treated successfully by *Halford's* method, which consists in injecting into one of the large veins liquor ammoniæ, diluted with two or three times its quantity of water. Twenty to thirty drops of the solution should be introduced.

New Publications.

Books Received.

The Surgical Treatment of the Diseases of Infancy and Childhood. By T. Holmes, M. A. Cantab., late Surgeon to the Hospital for Sick Children, &c. 2d Edition. Lindsay & Blakiston: Phila. 1869.

Original Communications.

REMARKABLE CASE OF CEREBRO-SPINAL DISEASE

ATTENDED WITH CONVULSIONS, RECURRING AT SHORT INTERVALS, AND WITH PROTRACTED SOMNOLENCE.

By JOSEPH JONES, M.D.,

PROFESSOR OF CHEMISTRY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF LOUISIANA, NEW ORLEANS; ONE OF THE VISITING PHYSICIANS OF CHARITY HOSPITAL.

The patient, Miss Susan C. Godsa, was exhibited at the Mansion House, in the city of Nashville, during the month of November, 1867, and at the request of her relatives, and of a number of physicians, a careful examination of the singular phenomena presented by this unfortunate young woman was made.

History of the case as detailed by her relatives.

Miss Susan C. Godsa, now in her 27th year, has been asleep for the last eighteen years, only awaking at certain intervals in the day, and then only remaining awake from seven to ten minutes. Native of Gibson Co., Tennessee. Her father was a respectable and hard-working blacksmith, noted for his great muscular strength and general health and vigor of body. The only members of her immediate family now living are a married sister and brother, who are with her at the Mansion House, and appear to be in the enjoyment of good health. Up to the time she was six years old she was remarkable for her sprightliness and vivacity of manner, and the general cheerfulness of her disposition. During her sixth year she was attacked with ague and fever, with which she suffered for three years. The physician who attended her failed to arrest the disease. Her eyelids became affected in such a manner as to fall over her eyes, defying every effort on her part to open or close them. This affection, however, appeared to be only temporary in its nature, and disappeared whilst the chills continued. Another physician was called in, who administered for the relief of the chills large doses of quinine and morphine in doses which, he stated, would have killed any other person. The exact amount of quinine was not remembered. It appeared to have been excessive for a child of nine years, as forty pills were mixed, each of which was of the size of a buck-shot, and five or six of these were administered at a dose.

After the continuance of chill and fever for three years, and at the age of nine years, and just after these large doses of quinine, Miss Godsa fell into the sleeping state which rendered her case so remarkable.

The physician who had first attended her was again called in, and, after an examination, attributed her condition to the medicines which she had taken, and stated that it would require at least seven years for her system to be cleared of the powerful doses which she had been required to swallow.

During the period of three years she continued to have violent attacks of chills, and was attended by various physicians, none of whom afforded her any relief. Finally, after a temporary improvement, Miss Godsa was compelled to betake herself to bed, where she has since remained.

When the disposition to long slumbers began to manifest itself, she was frequently seized with painful cramps and suffered great agony.

Her heels would be suddenly drawn up towards her head, and then thrust back again suddenly, the motion appearing to be entirely involuntary.

Since the patient has been confined to bed she has grown three feet, her present height being five and a half feet.

She never asks for food, and eats only when strongly urged by her attendants. A small quantity of water, imbibed at long intervals, satisfies her thirst. She is fond of tea and coffee, and drinks these beverages with more relish than any other. She expresses no choice as to food, and eats without objection what is given her. She never complains voluntarily, though when asked whether she suffers any pain, complains of pain in the head, back, and left side, and of the nervous tooth-ache.

She has said that she would rather be dead than thus linger out her existence. Her periods of consciousness are said to be very regular; waking at 6 A. M., and every hour thereafter until 12 M., when she falls into a slumber which lasts until 3 o'clock P. M.; returns to consciousness at the time of the setting of the sun; waking again at 9 P. M., and once or twice before morning. Her finger and toe nails are said not to have grown for the last eighteen years. Her strength is not sufficient to bear the weight of the body.

Miss Godsa has resided during her somnolent state in Obion County, six miles south of Hickman, Kentucky.

Those having her in charge have been led to hope that travel will benefit her health, and the expenses are to be defrayed by the exhibitions.

The above facts were corroborated by several respectable citizens of Hickman, Kentucky, and one year after this examination, as I was passing through this place on my way to New Orleans, I learned that Miss Godsa was in feeble health and dropsical. The exhibitions did not defray expenses, and the relatives had returned with her to Obion County.

I examined Miss Godsa in the presence of various medical men and students upon two occasions; each examination extended ever a period of two hours.

Upon entering the room, a delicate, frail woman, with dark hair, combed neatly back from her forehead, was observed reclining upon a small bed, with her eyelids closed, and her arms crossed upon her breast. The features of the face presented the appearance of repose and of deep sleep, whilst the arms and hands, crossed upon the breast, were incessantly agitated by spasmodic contractions of the muscles. The incessant shaking of the hands, which agitated the bed-clothing, appeared to suffer no abatement or period of repose. Shaking, loud talking, and the magneto-electric interrupted current failed to arouse the patient, and when the eyelids were drawn back the pupils were expanded, but responded to the stimulus of light and slowly contracted. At the expiration of eight minutes the head and neck were thrown violently from side to side, by rapid lateral convulsive motions of the muscles.

These convulsive jerking motions of the head from side to side were so rapid and violent as to shake the entire bed upon which she lay, and even to jar the floor of the room.

The respiration appeared to be impeded, and the face began to grow livid. Such was the rapidity of the motions that it was impossible to distinguish the features, and the face presented a dim constantly changing outline.

The convulsive movements of the head lasted about one minute, and were followed by a short period of repose of about the same duration, when the muscles of the back, neck, and trunk generally were powerfully contracted, raising the head in short spasmodic jerks from the pillow, and drawing it forcibly forwards

upon the chest, until the chin rested upon the breast. It was found, even with the exertion of considerable force, wholly impossible to straighten the bent neck and head.

During these tonic contractions of the muscles, as the head was drawn upon the breast, the inspirations were attended with peculiar spasmodic, gasping, croupy sounds, issuing from the rigid larynx and throat. These strange sounds varied in number during each paroxysm from ten to fourteen. The spasms of the muscles ceased as suddenly as they had commenced, the head fell upon the pillow, only to rise again, after the peculiar round of phenomena, with the suddenness and precision of a piece of machinery, working back and forth in a socket, and gauged to regular and set distances.

During both series of convulsive and tetanic movements, the patient remained unconscious. We were told, however, that the spasm of the head and neck sometimes occurred during the few brief moments when the patient was awake, accompanied by the same peculiar sound from the throat, which seemed to give her great pain, and often appeared to threaten her life with strangulation.

These phenomena were repeated, in the order mentioned, at regular intervals.

Miss Godsa awoke at intervals of about one hour, during these examinations, cast her deep blue eyes about the room, noticed every person, and recognized all her attendants, called them by name, and answered questions rationally.

The periods of consciousness lasted only a few minutes; the voice was weak and trembling, but the replies to questions were rational. She said that a ring on her finger had been given to her by her sweetheart while he was in the Confederate army. We gathered from this remark that the heart of the "sleeping beauty" was not insensible to the tender passion. During these periods of consciousness the patient did not care for any food, but invariably expressed a desire for water, and when questioned, complained of pain in the back, head, and stomach.

The urinary secretion was examined, and found to be scant and high-colored, and not deficient in urea.

This curious case presents many points of profound interest, and an exhaustive discussion of its nature and causes, and of its relation to the action of malaria and large doses of quinine, and of the seat and cause of those wonderful automatic and stereotyped mechanical movements, would consume more space than could be occupied in a single issue of this journal, and must be deferred to another occasion.

In the meantime we earnestly invite the attention of physiologists and pathologists to the consideration and discussion of the nature of these singular nervous and muscular phenomena.

347 Magazine Street, New Orleans, La.

Cretinism in Switzerland.—In the nineteen cantons of Switzerland, 3,431 cases of cretinism, and 6,259 cases of insanity, were found after a recent census, and, as the population of the country amounts to 2,032,118 inhabitants, it follows that these 10,058 persons of weak mind give the enormous proportion of one mentally diseased person in 202 inhabitants; and even this is believed to be below the truth.—*British Medical Journal.*

Death of a German Author—Prof. Griesinger, author of a work on "Mental Diseases," died of iliac abscess, at Berlin.

ON SOME OF THE REACTIONS OF THE SULPHITE OF MAGNESIA.

By F. A. BURRALL, M.D.

While reading Dr. W. B. Lewis's interesting and valuable article "On the Sulphites of Soda in the Urine," * it occurred to me to examine some of the reactions of the sulphite of magnesia.

This salt, although less used in this city for internal administration than the sulphite of soda, is the one recommended for such a purpose by Dr. Polli of Milan, who first introduced the sulphites as antizymotic remedies. The sulphite of soda is preferred for internal use to the magnesia salt, because it is more soluble, and will consequently make a stronger lotion.

In Braithwaite, Part LV.,† is an analysis of an article in the *British and Foreign Medico-Chirurgical Review*, from which the following is extracted:

"M. de Ricci attributes another source of failure to the administration of hyposulphite of soda, instead of the sulphites and *especially the sulphite of magnesia.* The hyposulphite of soda is less efficacious than the sulphites, because in the former the greater part of the acid becomes oxidized in its passage through the animal economy, and appears in the urine as a sulphate; because, being a salt of hyposulphurous acid, it is a less active antizymotic; and because it often causes a troublesome diarrhœa, while the sulphites of soda and magnesia never produce such effects. M. de Ricci prefers the magnesian salt for internal administration, as it is less unpalatable and contains a larger quantity of acid than the soda salt; but he uses the sulphite of soda for external application, because from its greater solubility a stronger solution may be made with it."

The next extract is from Braithwaite, Part LIII.‡

"Upon the whole, the best mode of administering the sulphite of magnesia is in the form of powder, because of the large quantity of water it requires for its solution, and because in that state it is most easily altered by the air. This sulphite has the least taste and is the most active of all, and since it undergoes in the dry state the least change, it is to be preferred to all the others for medicinal purposes. From fifteen to thirty grains may be prescribed in powder, to be taken either in water or other vehicle, or it may be covered with gum or dextrine and taken as troches or jujubes."

Undoubtedly it may be said *de gustibus non disputandum*, and some practitioners will prefer the soda and some the magnesia salt; yet it is desirable to know how the sulphite of magnesia acts in the urine in the presence of chemical tests.

The mixtures of the sulphite and water used in the present instance might both be termed saturated, although one bottle contained more of the salt than the other, for in each a portion of the powder remained in the bottom of the bottle.

Aqueous Solution of the Sulphite of Magnesia. The fluid was slightly opalescent. Boiling produced no change. On adding a few drops of colorless nitric acid, the solution became perfectly transparent. Nitrate of silver threw down a white precipitate, most of which almost immediately fell to the bottom of the test tube, leaving the supernatant fluid bluish. This mixture was neutral to litmus paper.

A specimen of urine was then examined of the following character: acid, specific gravity 1028, no change on

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* Medical Record, March 15th, 1869.

† P. 18, from *British and Foreign Med. Chir. Rev.* April, 1867.

‡ p. 282 Addenda, from *Med. Times and Gazette*, May 5th, 1866, p. 475.

boiling or with the addition of colorless nitric acid. Nitrate of silver threw down a white deposit: microscopic appearances were negative.

To a portion of this urine was added a watery solution of sulphite of magnesia (15 grains to the ounce), in the proportion of one part of the solution to two parts of the urine, and the mixture was examined with the following results:

Acid to litmus paper. A flocculent opalescent deposit appeared on boiling, which readily dissolved on the addition of a few drops of colorless nitric acid. Nitrate of silver threw down a white deposit. On adding a minute quantity of the uncooked white of egg to a mixture similar to the first, and boiling, a cloud made its appearance, which persisted after the addition of nitric acid.

Another specimen of acid urine, which did not change on boiling, was mixed with a similar quantity of sulphite of magnesia and boiled. A flocculent cloud at once appeared, which gradually fell to the bottom of the test tube and was of a bluish color. On examining this precipitate with the microscope it was found to consist almost entirely of the stellar phosphate of lime and occasional groups of granules. On allowing a drop of nitric acid to mingle with the deposit on the slide, the crystals of the phosphate could be seen to dissolve.

It will be observed that the reactions of the sulphite of magnesia in urine are similar to those of the sulphite of soda. In Dr. Lewis's experiment the mixture was alkaline, in the former, acid. Although in two of the specimens of urine mentioned in this article no cloud of phosphates formed on the application of heat, yet after the addition of the sulphite of magnesia to a similar specimen of urine a cloud was formed which the microscope showed to contain phosphates. The presence of the magnesia salt did not interfere with the tests for albumen.

SYMPTOMS OF CEREBRAL MENINGITIS.

RECOVERED FROM UNDER THE INFLUENCE OF THE SULPHATE OF MORPHIA.

By M. C. HASBROUCK, M.D.,
NYACK, N. Y.

A HEALTHY little girl, three years old, fell backwards from a fence, striking her occiput upon the ground; she cried for a few moments, but soon forgot her fall and made no more complaint. This was about the first of July, 1868. On the seventeenth day of the same month she fell again, but this time out of a swing, and with greater violence, and again upon the back part of her head, producing a slight contusion of the scalp and complete unconsciousness. She was taken up and carried into the house, where she soon recovered her consciousness, vomited freely, and finally fell asleep, from which she awoke in an apparently fully restored condition. She however passed a restless night, and the next day did not appear quite as well as usual. She would occasionally stop her play and want to sit upon her mother's lap, and when asked, said her "head hurt." In the afternoon she became feverish, and the next morning (19th July) did not want breakfast, complained more of her head, and about noon became very sick, when I was sent for. I saw her about 2 P.M., and found her lying across her mother's lap, her head hanging down and yet drawn backwards. She seemed to be asleep, but her eyes were not entirely closed, the eye-balls rolling about and turned upwards, the conjunctiva slightly injected, and the pupils somewhat contracted. She occasionally closed her eyes tightly and knit her eyebrows. Her face was flushed, her head was hot, and her hands and feet were cool. Her pulse was rapid and weak. Every minute or two she would start and scream, and toss her arms and legs, as if suffering severe pain, or as if frightened, and at these times would utter some words incoherently, and again drop into an unnatural slumber. She could not be awakened to a natural state of mind. Her bowels had moved naturally the day before, and her abdomen was of normal fulness and softness. There existed no evidence of any derangement of function anywhere of which these brain symptoms could be sympathetic. I therefore concluded that they arose from acute inflammation of the meninges; and considering their violence, I felt as if the ordinary treatment of such cases by depletion, revulsives, iodine, mercury, counter-iritation, etc., must fail to relieve her; and if she could be saved it must be by some other method.

The paroxysms of pain, or of great distress of some kind, which caused the repeated spells of tossing and screaming, and also the dreadfully crushed state of her nervous system, suggested opium; and the favorable results of its use in large doses in peritonitis, and the fact of having heard Prof. Clark of New York suggest, in a lecture, its possible advantages in arachnitis, emboldened me to try it in this case. I ordered the sulphate of morphia in solution, beginning with one-eighth grain doses every half hour, gradually lengthening the time to two hours as she came under its influence; and then increasing and diminishing the quantity as it became necessary to maintain a full soporific effect, and no more. She soon became comparatively quiet, and her pulse was reduced in frequency, and increased in fulness and steadiness.

On the 20th and 21st, her urine was drawn by catheter. No attention was given to her bowels. On the 22d, she passed urine unaided, and required less anodyne to keep her quiet. On the 23d, her sleep became more natural, and she would awake a little, and apparently without delirium. I feared at first that this change was the result of effusion; but the pupils remained undilated, and late in the afternoon she was awake enough to ask for food; and from that time she rapidly recovered.

About a fortnight after I had discharged her as well—although I could yet observe a peculiarity in her manner and about the motions of her head—I was again sent for; and again found her across her mother's lap, her head hanging down and thrown backwards, her eyes half closed, and her arms extended and grasping at imaginary objects. She had also occasional starts, and a moderate febrile movement, but no violent struggles as before. Her head was not so hot, nor her face so flushed. It seemed to me more like a sympathetic excitement of the brain; and this view was strengthened by the facts that she had eaten an unusual quantity both at dinner and supper of the day before, and had had a number of loose passages from the bowels during the night. I prescribed two grains of calomel every two hours. Before the time arrived for the fourth dose the medicine began to operate, and she had three full evacuations. Nothing more was given, and the next day she appeared as well as ever, and has remained so until the present time. Her mother says her temper is more irritable than it was before these attacks.

The interest in the case centres entirely on the question of diagnosis. The cerebral phenomena in the first attack may have been the evidences of functional disturbance only, as those in the second were proved to be by the result; but in the history of the two attacks those in the first connected themselves as directly and clearly with the falls on the head, as those of the second did with the intestinal disturbance.

Original Lectures.

PEPSIN,

ITS PHYSIOLOGICAL AND THERAPEUTICAL ACTIONS.

REMARKS MADE BEFORE THE NEW YORK MEDICAL JOURNAL ASSOCIATION.

By J. S. HAWLEY, A.M., M.D.,

GREENPOINT, N. Y.

PART I.

The primary object of these remarks is to bring together in compact and available form what is known of pepsin, physiologically and therapeutically. Although modern physiologists have elaborated the subject to a high degree of completeness, yet the physiological knowledge is purely scientific and has no relation to practical medicine.

I purpose on this occasion very briefly to enumerate the physiological facts, and then somewhat more at large to develop the therapeutical relations, and relate a sufficient number of cases, not only to elucidate the subject, but to afford a guide to the practical application of pepsin to the treatment of disease. No originality is aimed at, only the humble task of collecting in a somewhat connected form what is already known, and of putting the labors and experiences of others into an available shape.

Secondarily, it is my desire to call the attention of this Association, and through it, of the medical profession, to an article of pepsin of domestic manufacture believed to be of good quality and superior to the foreign.

The fact that food taken into the stomach was reduced to a pultaceous condition by a solvent fluid poured out from the walls of the organ, was demonstrated by the experiments of Reaumer and Spalanzani in the latter part of the eighteenth century. Previous to that time the food was supposed to be triturated by the contractile movements of that viscus. This discovery gave a new direction to investigation. It was at length ascertained that the gastric fluid performed the office of digestion only for a portion of the aliment, viz., the albuminoids. This fluid, although the principal, not the only digester, has been found to be a compound substance, the most important elements of which are a peculiar organic substance called pepsin and an acid secretion. This acid is now believed, by recent physiologists, to be the hydrochloric, though there are not wanting respectable names who still advocate the view that the lactic is the natural acid of the stomach. The organic body or ferment is in itself destitute of digestive power, its activity being developed only by the addition of this acid. Experiment, however, has proved that any acid will awaken this dormant quality of the pepsin, and we may therefore infer that the acid compound is not necessarily the same under all circumstances in the living organism. The proportion of pepsin in the gastric juice is very small (17 parts in 1000); in other words, a small amount of pepsin gives digestive activity to a large quantity of acidulated fluid.

Pepsin is a protein body, differing from other protein substances in the greater amount of nitrogen it contains. It differs from albumen in not being precipitated from its solutions by the same reagents. It is entirely soluble in cold water, but, according to Dunglison, not in hot water. It is precipitated from its watery solution by alcohol and by the salts of lead without impairing its activity. Temperature has a remarkable influence over the activity of pepsin. Low temperatures suspend its action.

At the ordinary heat of the atmosphere it acts feebly. At about 100°, or the temperature of the body, it acts vigorously. Above that temperature its action is temporarily increased and finally destroyed. The degree of heat which will destroy its activity is supposed to be about 120°.

Certain substances suspend its digestive power. Among these are alkalies, strong alcohol, concentrated acids, and bile; this latter substance completely and permanently destroys its activity.

Another remarkable quality of pepsine is its inaptitude for putrefaction, as well as its ability to arrest the putrefactive process when it has already begun. The manner in which pepsin effects the solution of albumen is not definitely settled. That it is not a chemical process is evident from the fact that albuminose or peptone does not differ in chemical composition from albumen, and that the pepsin remains after the act of digestion has been completed; that is, neither substance is destroyed and no new substance is formed, which is always the result of a chemical combination. Dr. Brinton believes the change effected in albumen by the action of pepsin to be of the nature of hydration—not a simple solution, but an intimate alliance between the albumen and the water, which the presence of pepsin alone is able to produce. That it is a chemical union of *very low grade*, which does not alter the composition of either substance, but produces a union so intimate as to create new qualities without change of composition.

On the other hand, our eminent countryman, Prof. J. C. Dalton, regards the process as a catalysis; the contact of the pepsin with the food inducing a change of quality by rearrangement of particles, but not a change of composition. After an acidulated solution has become saturated by albumen, or in other words has digested all the albumen it is capable of, the peptone may be separated by dialysis, and the same pepsin will again digest another equal amount of albumen, and so on indefinitely. This is supposed to be measurably the case in the stomach.

The peptone produced by the digestive process is absorbed to some extent by the walls of the organ, thereby setting free the pepsin to be reacidulated and to enter anew upon the digestive process. The foregoing statements substantially set forth in very few words what is at present known of the nature and office of pepsin in the animal economy.

We now proceed to consider pepsin therapeutically. The use of this substance as a remedial agent preceded the physiological knowledge of its existence. Infusions of stomachs were in use in the time of Galen, and used by himself for indigestion. The coagula found in the stomachs of sucking animals had a place in the pharmacopœias of the 18th century, and the lining membrane of the chicken's gizzard remained officinal up to 1746, and is even now extensively used as a domestic remedy for dyspepsia.

The medical profession is indebted to the sagacity and enterprise of Dr. Lucien Corvisart, for conceiving and developing the happy thought of aiding nature in her embarrassments by the use of her own agents.

Having established the truth that aliment is converted into nutriment principally by the agency of a certain substance produced in the stomach, he conceived the idea of extracting that substance from the healthy stomachs of animals, and using it to aid the defective digestion of those in whom this function had become impaired or destroyed.

As a foundation upon which to base his clinical observations, he lays down the following propositions:

1st. That aliment is an inanimate substance, without nutritive power of itself, which would allow to starve one who could not digest it; that it is digestion which gives it vital fitness, and by virtue of which it thereafter imparts life.

2d. That the only thing necessary to perform this transformation of aliments into nutriments is acidified pepsin.

3d. That under the influence of this physiological agent, nitrogenous aliments undergo the same physical, chemical and organic modifications as they would under the influence of the gastric juice in the stomach itself.

4th. That artificial pepsin, aside from a different degree of force, has the same power of transforming aliment into nutriment as the gastric juice in the stomach of either carnivorous or herbivorous animals; that is to say, its digestive power is always similar; a demonstration of the highest order of interest, and upon which there rests no doubt, whether tested by physiological experiments or therapeutical results. Further, that if digestion by the aid of pepsin can be successfully carried on in an inert bottle or pouch, so much the more in the living stomach, which imparts the natural motion and heat, although it may not secrete the digestive principle. He closes his arguments by this general proposition: "If these physiological experiments, infinitely varied, demonstrate that there is but one agent for producing digestion; that under its influence aliments always become assimilable; and that by the vital power which pepsin contains, we can transform anywhere aliment into nutriment, one ought, then, by the use of the same agent, to cause those to digest and be nourished whose stomachs, by a vice of secretion, are deprived of this agent, this vital force which is indispensable." "If each paroxysm of intermittent fever interrupted by quinine, is a proof of its antiperiodic power, then is each difficult or impossible digestion made easy and complete by pepsin—a proof that it is a true digester."

In support of his conclusions, Dr. Corvissart adduces a number of cases derived from the practice of distinguished *confrères*. I will recite a single case as a sample:

Case I.—Mad. M., aged fifty years, for many years troubled with a gastralgia; sense of weight and fulness in the epigastrium after meals; a severe pain in that region; acid and acrid regurgitations, and finally obstinate constipation. This lady was long treated for gastritis by free blood-letting, as well as leeches to the epigastrium. Since I have had the care of her, I have employed bitter and iron tonics, as well as antispasmodics, without much success. On the 22d of August I ordered two doses of pepsin during the day, at the beginning of each meal.

On the 23d, revisited the patient. She had suffered less indigestion; was easier; and the sense of weight diminished.

Ordered to continue the pepsin every four hours, wishing to assure myself that the improvement was due to the pepsin.

From the 23d to the 26th, Mad. M. had taken four doses a day, and during this time her digestion was easy, and she suffered neither sense of weight nor acid eructations. From the 26th to September 5th, she took no pepsin. Revisited her September 2d. She said she was suffering again; the digestion was not good, and the epigastric pain had reappeared, and she demanded again the remedy before prescribed. On the 6th of September Mad. M. resumed the use of pepsin, and continued it six successive days. September 13, her sufferings had ceased. She digested well, and visited the closet without inconvenience. From this time her digestion was always good; her sufferings never returned, and her health was perfectly restored.

The following case, reported by Dr. Landry, may be condensed into few words:

Case II.—A young country girl, twenty years of age, had suffered from a gastro-intestinal fever, whereby her digestion became much impaired. She suffered after each meal from epigastric swelling, sensation of suffocation, eructations and gastralgia; her appetite failed, and symptoms of chlorosis appeared.

The administration of calcined magnesia after each meal, and of ferruginous preparations, produced little effect. At length I tried pepsin. Twelve doses were given, one after each meal. After the first the digestion was without pain, and the administration of the remaining eleven was followed by the same result.

The appetite was restored, and the digestion being good, the remedy was discontinued.

The next case is one reported by Bartelot, of Paris:

Case III.—M. D., aged thirty-six years, of a bilious-nervous temperament, and a great smoker, has suffered two years from painful digestion, and vomits every day after dinner. Light nourishment and moderation in the use of tobacco were recommended without benefit. I then directed a dose of pepsin to be taken at breakfast and dinner, in the first spoonful of soup or porridge. This treatment was followed ten days, and the patient digested better, and his vomiting ceased. The treatment was discontinued. Fifteen days after he came to thank me, and assured me that he was very well, vomited no more, and digested perfectly.

The following case is kindly furnished by Dr. W. F. Sanford, of the city of Brooklyn, and is of recent occurrence:

Case IV.—Mr. S——, aged about thirty-five years, called on me August 1st, 1868. He complained of most severe pain after meals, lasting sometimes for hours, a feeling as if "bad food was in his stomach," as he expressed it, and other symptoms of severe dyspepsia.

He had some five months before been laid up for three months with a wound in his ankle, which, with his indigestion, had reduced him greatly. His surgeon had prescribed various tonics, etc., with little avail as regarded the old disease, which he said had troubled him for years. He did not regain the flesh lost during his confinement from the injury, since he was again at his business. He was to return in a day or two to the country, where he had been engaged. I ordered two ounces of American pepsin to be taken with him, and a twenty-grain powder to be taken before each meal. Knowing him to be a most temperate and careful man in his manner of living, I gave him no directions in regard to his diet, but only to follow his own judgment. He was to report to me after he had finished the two bottles, unless better. I heard nothing from him until December 1st, when I met him, looking like a new man and joyfully expressing himself as well. I could attribute the wonderful result to pepsin alone, since there had been no change in diet or manner of life, and no other remedy had been taken. He had even less exercise than usual, as his foot still troubled him. Dr. Sanford further says, I remember several other instances which have come under my observation, but of which I have taken no notes, in which pepsin has produced most marked and permanent results in cases of chronic dyspepsia. One especially, in Dr. Clark's clinic in 1865, in which the results of the use of pepsin wine were made very apparent to the Professor and class, in the

case of a girl about seventeen years of age who had severe vomiting, etc. One week from commencing the remedy she was much better, and at the end of two weeks the vomiting had ceased and she was almost well.

Case V.—The following case occurred recently in my own practice: George Hankinson, aged forty-six years, has been troubled with dyspepsia from early life, as shown by eructations of food, water-brash, sense of weight at epigastrium after eating, frequent diarrhœa, with portions of undigested food in stools.

November 1, 1868.—℞ Am. pulv. pepsin, grains xij.; subnit. bismuth, grains v., before each meal.

November 4.—Is better; less sense of weight; less undigested food passes.

November 9.—Has had no eructations since last visit, except on one occasion after eating fried potatoes; no undigested food is found in the dejections.

November 18.—No symptoms of indigestion are present; bowels regular.

More or less of flatulence continued to annoy this patient after the last date, for which neither pepsin nor pepsin and bismuth proved effectual.

The foregoing cases illustrate the ordinary and well-known effect of pepsin in common chronic dyspepsia, due to impaired tone of the stomach and consequent vitiated or diminished secretion of gastric fluid. Contempt is sometimes thrown upon the use of pepsin as a medicine, in consequence of the small quantity of the remedy given in comparison with the large amount secreted during digestion. The force of this objection is much diminished, when we remember that a very small amount of the organic principle, pepsin, is sufficient to give digestive activity to a large amount of acidulated fluid, and that the same pepsin may accomplish repeated digestions after successive absorptions of peptone by the gastric walls.

Moreover, it is not necessary to suppose that pepsin relieves indigestion only by as much as it digests food. In administering other remedies for indigestion, we do not estimate their usefulness by their digestive power, for the simple reason that they have no such power, but by their indirect influence, their effect upon innervation, thereby restoring functional activity. Is there any improbability that the natural agent of digestion should not only *supplement* the digestive power of the stomach, but also *arouse* it to activity? So far as physiological reasoning is concerned, this is much more probable than that foreign substances, as cinchona, nux vomica, and quassia, should do it. That pepsin has an influence upon digestion far beyond its simple power to digest is made apparent by clinical observation. How otherwise can we account for its influence over the vomiting of pregnancy? Dr. Lees, physician to the Meath Hospital, Dublin, makes the following remark: "Where there is a disgust of food you will find much benefit from pepsin, which generally causes an appetite." Had this been said of iron, or quinine, or nux vomica, we should have regarded it as so much evidence of their tonic effects, and why not so in the case of pepsin?

Large Doses of Indian Hemp Valuable in Tetanus.—S. G. Chuckerbutty relates (*Indian Annals of Medical Science*) the results of this treatment in thirteen cases. Death occurred from tetanus in six of the cases; the other seven recovered from tetanus, though of these three died ultimately from other diseases. Hemp was given in thirty to forty minim doses of the tincture every two or three hours.

Progress of Medical Science.

Portable Mustard Plasters.—M. Lebaigne (*Journal de Pharmacie*) proposes to make portable mustard plasters in the following manner:—One piece of paper is covered with a concentrated solution of myronate of potash, and a second with a concentrated solution of myrosine. The essence of mustard is developed when the two papers are moistened and put together. The solution of myronate of potash is obtained by throwing into boiling water the farina of black mustard. The myronate of potash is contained in the filtered solution, as the boiling water has destroyed the action of myrosine. The myrosine is obtained by action upon white mustard by water at 40° C. The filtered solution will contain nothing but the myrosine, as white mustard does not contain myronate of potash.

Employment of Glycerine of Tannin.—Dr. Sidney Ringer (*The Practitioner*) states this preparation of tannin is very useful in many diseases. It is not laid down in the U. S. Dispensatory, but Adolphe Wahltuch, M.D., alludes to the following formula for its preparation in the *Dictionary of Mat. Med. and Ther.*:—℞ Gallic Acid, ʒ i.; Glycerine, f. ʒ iv. Rub and heat. In ozæna, this combination is highly prized by Dr. Ringer. He also recommends it in the thin sanious or thicker purulent discharge from the nostrils which sometimes occurs after measles and scarlatina; in the obstruction of the nose frequent in syphilitic children. The purulent discharge from the ears, so often met with in unhealthy children, can be stopped at once by filling up the external meatus with this preparation. If there be acute inflammation of the meatus, this should be relieved before using the tannin.

Syrup of Codeia in Whooping-Cough.—A writer in the *Journal für Kinderkrankheiten* mentions that melon syrup, containing codeia, is regarded in Italy as a specific against whooping-cough. It is used in other convulsive coughs of children, especially those which are the sequelæ of acute inflammations; also in the nervous, hacking cough of pregnancy in nervous and sensitive women.

On Bloodletting as a Point of Scientific Practice.—Dr. B. W. Richardson (*The Practitioner*) lately proclaimed his views on bloodletting before the Medical Society of London, as follows:—

"I would recall that bloodletting, as a point of scientific practice, is still open to us in some stages of typhus fever; in cases where there is a sudden tension of blood, of which sun-stroke is an example; in cases of chronic congestion of the brain; in cases of acute pain from serous membrane; in some classes of spasmodic pain; in cases of sudden arrest of circulation from concussion; in cases of congestion of the right heart; and, it may be, in extreme cases of hemorrhage. Above all, I claim for it a first place in treatment of simple uræmic coma."

Unprecedented Success in Ovariotomy.—Of the last twenty-three women upon whom Dr. Thomas Keith, of Edinburgh, has performed the operation of ovariotomy, all, except one, are now alive and well.

Is the Eustachian Tube Opened or Closed in Swallowing?—The late Mr. Toynbee believed that the faucial orifice of the Eustachian tube is always closed, except momentarily during the act of deglutition, or when air is forcibly blown through it. Prof. Cleland, of Galway, produces evidence which he thinks clearly proves that the Eustachian tube is usually open, and in swallowing is momentarily closed.

SECONDARY HEMORRHAGE FROM BRACHIAL ARTERY TREATED BY COMPRESSION AND PERSULPHATE OF IRON.—John Stainback Wilson, M.D., of Cypress (near Houston), Texas, (*Am. Jour. of Med. Sciences*) reports the following interesting case of hemorrhage from brachial artery treated by compression and persulphate of iron:—

A soldier, aged 25, was wounded by a rifle ball, which entered the posterior and outer part of the forearm, two and a half inches below the elbow, passed upwards and inwards, fracturing the internal condyle of the humerus, and making its exit on the inner side of the arm, about the same distance above the elbow as the point of entrance below; thus passing over the course of the brachial artery.

Eighteen days after the accident a profuse hemorrhage occurred from the lower orifice of the wound, which was promptly arrested by the application of persulphate of iron, in powder, to the bleeding part, and by compression, as follows:—A compress of lint was pushed gently into the wound, and then another was placed over this. Next, a long compress of firmly folded cloth was placed over the whole course of the brachial artery, which was held in place by a bandage pretty tightly applied from the ends of the fingers to the axilla. The whole limb was then elevated and irrigation used, by letting cold water drip from a suspended canteen. On the following night the hemorrhage recurred, but in moderate quantity; the blood having coagulated sufficiently to check the hemorrhage before my arrival, the dressings were not disturbed, except so far as to tighten the bandage, which had become somewhat loose. The only additional treatment was a few half-grain doses of morphia, with five drops of tinct. veratrum viride every three hours.

In conclusion, he states that the above treatment was adopted for the following reasons:—1st. The patient was young and in good condition, and therefore his life was not immediately endangered. 2d. My experience and observation had taught me that cutting open wounds and tying bleeding vessels are much easier said than done, and not to be attempted except when imperatively demanded. 3d. On my first visit the hemorrhage, though not entirely checked, had so far subsided that I thought myself justifiable in being governed by the sound maxim—"Never operate unless the artery, however large, is bleeding."

VENESECTION FOR THE ARREST OF UNAVOIDABLE HEMORRHAGE.—Dr. C. C. F. Gay, of Buffalo, N. Y. (*Am. Jour. Med. Sciences*), claims that venesection, as one of the means for the arrest of unavoidable hemorrhage, will, beyond a doubt, at least in a majority of cases, arrest uterine hemorrhage. He publishes several interesting cases in proof of this treatment.

PHYSIOLOGY OF LANGUAGE.—Dr. Hughlings Jackson (*Am. Jour. Med. Sciences*) does not attempt to localize the seat of the faculty of language in the brain. Regarding the function of the brain, his theory is that in most people the left half of the brain is the leading side—the side of the so-called "will," while the right half is the automatic side.

IODIDE OF SODIUM IN LEAD POISONING.—The iodide of sodium is advised by M. Rabuteau in treating lead poisoning, instead of iodide of potassium. The former is as active an eliminant as the latter, and no ill effects are produced.

SULPHUR IN THE TREATMENT OF CROUP.—The use of the perchloride of iron and of the bromide of potassium has been much advocated of late in the treatment of croup and diphtheritic angina. The flour of sulphur, which had already been pointed out by different writers as an excellent remedy in similar cases, is now spoken of in most laudatory terms by a French writer, Dr. Feyreigne, of Toulouse, in whose hands it produced most wonderful effects. Dr. Feyreigne only records one case, but it was a peculiarly bad one. The patient, a little girl of four years, was in a dying condition with intense diphtheritic angina, when the administration of the flour of sulphur brought her back to life. The dose employed was five grammes of sublimated sulphur to one glass of water; a teaspoonful of the mixture to be given every hour.

CINCHONA IN ALGERIA.—We read in the *Cosmos* that the attempts which have recently been made to introduce into Algeria the cultivation of the cinchona tree will probably be attended with success. Analyses of the bark of the cinchona trees thus cultivated have shown that the alkaloids which constitute their medicinal properties are quite as abundant in these specimens as in others coming from the usual sources.

BROMIDE OF POTASSIUM FOR CHILDREN.—Scarcely any modern remedy has enjoyed such favor among practitioners, and been the subject of such extensive research, as bromide of potassium. Its effects have been vaunted in a considerable number of maladies where it is necessary to exert a sedative action upon the nervous system—for instance, epilepsy, croup, headache, &c. M. Moutard-Martin, a nosocomial physician of Paris, now informs us that it has proved a most useful remedy in his hands for combating certain infantile diseases, and has been of especial service in producing a condition of tranquillity in children who are much agitated by disease, and in procuring rest to infants who are deprived of sleep. The suffering which some children undergo from want of sleep, even when not otherwise ill, and the distress to which they put their nurses or parents, are so great, that any remedy having, like the one in question, the property of inducing needful repose, must be most welcome both to practitioners and parents. M. Moutard-Martin states that when every other remedy—such as the warm bath, orange-flower water, and the infusion of cherry—has failed in such cases, the bromide of potassium has given the most remarkable results. There are also other cases in which its employment is very valuable in infantile therapeutics. The nervous erethism which attends dentition, and which manifests itself by a condition of excitement, cough, and sleeplessness, is often abated by the employment of the medicament; and M. Moutard-Martin is confident that its timely and proper use may even ward off attacks of convulsions. In many cases its action is very prompt and decisive. It should be administered to very young children in weak doses of from five to twenty centigrammes, and should be withheld in cases of diarrhœa.—*Lancet.*

CORPUSCULA TACTUS.—Rouget, in a recent number of Brown-Séquard's *Archives de Physiologie*, describes some new researches into the structure of the minute corpuscles found on the terminations of the peripheral nerves. He calls to mind the discovery of the corpuscula tactûs, by Wagner, in 1852; of similar corpuscles, by Meissner, in 1853; and of others of a like kind found by Kranse in the conjunctiva and in the mucous membrane of the lips, mouth, tongue, penis, and clitoris. In structure all the corpuscles consist of a central nucleus, a sheath, and a nerve fibril. The sheath is always composed of connective tissue; the nucleus sometimes consists of connective substance in a hyaline or granular form, and sometimes of nerve substance; and the nerve fibril makes a close spiral coil around the corpuscle.—*Journal of Cutaneous Medicine.*

Soda-Water.—The *British Medical Journal* states that, as a beverage, the most agreeable soda-water is made of deep-well water, containing 4 per cent. of bicarbonate of soda and a small proportion of common salt or carbonate of lime. For medicinal purposes each bottle should contain fifteen grains of bicarbonate of soda.¶

Often soda-water is made of impure water, and an unpleasant flatness or after-taste is experienced. Whenever this is the case the water should be rejected.

Preparation of Bromides.—The following method for preparing bromides, especially bromide of calcium, is advocated by Dr. Boedecker:—Twenty parts of sulphur are dissolved in 240 of bromine, and the solution poured into a thin milk made of 140 parts of pure burnt lime. The whole is filtered when the expected reaction has taken place—$S+3Br+4CaO$, becoming $3CaBr+CaOSO_3$,—and the filtrate, with the washings, saturated with carbonic acid, and heated to remove the excess of lime, after which it is evaporated to a small volume and mixed with twice its bulk of absolute alcohol, in order to precipitate the gypsum. The alcohol is removed by distillation, and the residue is pure bromide of calcium, from which the alkaline bromides may be made by the ordinary methods.—*The Druggists' Circular and Chemical Gazette.*

Oil of Turpentine in Traumatic Erysipelas.—Professor Lücke, of Bern (*Berliner Klin. Wochenschrift*), believes that the local application of oil of turpentine in traumatic erysipelas is very beneficial. The redness disappears in two or three days, and the temperature falls in a remarkable manner under this treatment. By rubbing in the turpentine, rather than pencilling with it, the effect is more rapidly produced. No local irriration results from the application of the turpentine, the patient only complaining of a temporary feeling of burning.

Effusions into the Pleural Sac Treated by Paracentesis.—Coleman Rogers, M.D. (*Western Journal of Medicine*), in an able article on "Effusions into the Pleural Sac and their Treatment by Paracentesis," coincides with Velpeau, Trousseau, Townsend, Walshe, Stoker, Flint, and Bowditch, in the treatment of effusions of the pleural sac by paracentesis, all of whom advocate this mode of treatment, rather than by getting rid of the liquid indirectly by purgatives, diuretics, etc. He states if the fear of the introduction of air in small amount into the chest is to deter us from operating in certain cases, the procedure should never be resorted to at all, for there is no expedient that has been or can be devised to altogether prevent it. Air must, and always does, enter the chest during paracentesis. It cannot be prevented by any means. If air did not enter, or we could possibly prevent its entrance, none of the effusion would flow outwards. The flowing in of air is an indispensable condition for the flowing out of the fluid. In regard to the propriety of closing or leaving open the opening made by the operation, the following rules are laid down:—In cases of acute pleuritic effusions, or in those chronic ones where the fluid is found to be serous, and when the operator hopes to relieve the patient by a single tapping, the opening should be closed and hermetically sealed. In cases where purulent material is discharged, and we are satisfied that re-accumulations will take place from time to time—as is the rule—after the operation, requiring several tappings, the wound should be left open and not allowed to heal. The opening thus left, by establishing drainage, will prevent a re-accumulation, and allow the lung to become unfolded. If the opening is closed upon this air, it is left free to prevent expansion of the lung, to set up its irritations with consequent putridity and offensive accumulations, without a vent. In short, if air must pass in, give it and its consequent offensive materials chance to pass out. He concludes that, whenever and wherever the operation is made, two things should always be borne in mind, viz., To avoid wounding the diaphragm and the intercostal artery, and to select that point which will give complete and free access to the fluid.

The Bitterness of Sulphate of Magnesia Removed.—According to the *Bulletin Thérapeutique*, by boiling a little coffee in the solution of the sulphate, the flavor of the coffee masks the bitterness of the sulphate of magnesia. The decoction of senna may be covered in the same way.

Amaurosis from Neuralgia of Dental Nerves.—Dr. Alexander (*Zehender's Klin. Monatsbl. f. Augenheilk.*) publishes a case in which the patient had experienced a constantly increasing defect of vision in both eyes for five weeks, without any change in the appearance of the organs excepting some symptoms of hyperæmia of the pupil, which the ordinary antiphlogistic treatment failed to remove. Neuralgia of the dental nerves connected with carious teeth was the cause of the patient's sufferings; the dental suffering ceased after the extraction of the teeth, and almost immediately the loss of vision was removed; at first on the side corresponding with that from which the decayed teeth were extracted, but the sight of both eyes became fully restored after the lapse of a few days.

Large Salivary Calculus Removed from Wharton's Duct.—John L. Tiretone, M.D., of Salem, Ohio (*Am. Journal Med. Science*), lately removed a large salivary calculus from Wharton's duct of right submaxillary gland, from a farmer, aged fifty years. The calculus was fourteen lines long, eight broad, and six deep, and one and a half drachm in weight. It was composed of phosphate and carbonate of lime, held together by animal matter.

Bismuth in Indigestion.—W. F. McNutt, M.D., of San Francisco, Cal. (*Cal. Med. Gazette*), believes that bismuth is more than a local anæsthetic to the stomach, as generally regarded by practitioners. His experience of the administration of bismuth has led him to think that its efficacy is due almost entirely to its chemical action upon sulphuretted hydrogen generated in the bowels. Bismuth not only destroys the sulphuretted hydrogen present in the bowels, but is an antiseptic to albuminous matters, preventing their putrid decomposition. He administers to patients, suffering from nervous derangement caused by undigested food in the stomach, this drug in doses from five to ten grains, and quiet sleep follows. Bismuth combined with Dover's powder has a happy effect, when the former does not act as anticipated.

Intestinal Puncture in Tympanites.—Dr. Foussagrives (*L'Un. Med.*) has practised, at Toulouse, intestinal puncture, on two patients suffering with tympanites. In the first case, the abdomen formed an immense mass; the patient was perfectly cyanosed and suffocated. Into the most distended part of the lower umbilical region an exploring trocar was inserted; and the gas escaped so violently as to extinguish a candle. The distension returning next day, two fresh punctures were made in different places, and gave so much relief that the life of the patient was prolonged four days. In another case six punctures were successively made, until the gases were naturally evacuated, and the patient cured.

The Antiseptic Ligature of Arteries.—Recently, Mr. Maunder, Surgeon to the London Hospital (*Lan-*

cet), ligatured the left carotid artery, on the antiseptic principle recommended by Prof. Lister. The ligature was soaked in carbolic acid, cut short, and the wound perfectly closed. Scarcely any action was set up about the wound, and in less than a month from the deligation the wound healed.

Treatment in Diarrhœa of Infants.—Dr. Smith (*Med. News and Library*), in his valuable papers on the "Wasting Diseases of Infants and Children," recommends the following prescription, if the bowels are rather loose, with dark, slimy, offensive stools: ℞ Tinct. Opii. ♏viij; Ol. Ricini, ʒj; Syrupi Zingib., Mucilag. Acaciæ, ää ℥j—M. S. A teaspoonful three times daily. In the screaming fits, accompanied by constipation, this combination of castor oil with laudanum is very valuable.

Management of Severe Infantile Colic.—Dr. Smith (*Med. News and Library*) recommends the following treatment when infants are seized with a severe colic: The child should be placed in a warm bath; the bowels should be relieved by an injection of warm water; and a few drops of brandy or sal volatile should be given in milk or water. On being removed from the bath, the child must be carefully dried; a hot linseed-meal poultice, on which ten or fifteen drops of laudanum have been sprinkled, should be applied to the belly; and he should be then wrapped up in warm flannel. If the fontanelle remains depressed, the brandy may be repeated, and a mixture containing chloric ether with an alkali be prescribed: ℞ Sodæ bicarb., ♋ij; Æther chlor., ʒss; Sp. ammon. aromat., ʒss; Aq. anethi ad ℥ij. M. ʒij tertiâ quâque horâ.

Tubercles of the Retina and Choroid Diagnostic of Tuberculous Meningitis.—M. Bonchut (*Chicago Med. Journal*) asserts the following facts as apropos to this subject: 1st. That tubercles of the retina and of the choroid indicate either tuberculons meningitis or general tuberculosis. 2d. If a febrile case presents disturbances of intellect, of motion and of sensation, the existence of tuberculous meningitis may be inferred. 3d. Tubercles of the choroid constitute one of the most rare manifestations of the tuberculous diathesis. 4th. Tubercles of the choroid occur under the form of white miliary granulations—sometimes brilliant and nacreous. 5th. The retrogression granulo-fatty metamorphosis of the normal elements of the retina and of the choroid cells, is the origin of tubercles of the retina and of the choroid.

An Operation for Carious Bone.—Mr. Le Gros Clark, Surgeon to St. Thomas Hospital (*Medical News*), states that he cannot recommend the proceeding of gouging out the diseased texture of bone. His belief is, that violence is done to the sound bone adjacent to the diseased parts. The condition is analogous to that of an excavated ulcer in soft parts. Sinuses may be freely laid open, and suitable dressing employed, to encourage a healthy action and spontaneous cure. He uses diluted acetic acid as a bone-solvent, as well as a stimulant in carious cavities which have been previously laid freely open by external incision.

Oil of Turpentine in Traumatic Tetanus.—Prof. Lücke, of Bern (*Med. Times and Gazette*), has used oil of turpentine locally, in several cases of traumatic erysipelas. The redness disappeared in two or three days, and the temperature fell in a remarkable manner. By rubbing in the turpentine the effect is more rapidly produced. No local irritation results from the application of turpentine, the patient only complaining of a temporary feeling of burning.

Cases of Epilepsy.—Wayne Griswold, M.D., of Circleville, Ohio (*Western Journal of Medicine*), reports four cases of epilepsy which were treated by bromide of potassium, either alone or in combination. This remedy he values highly, and states in conclusion that he never investigates a case of epilepsy without carefully examining the generative organs, no matter how young or old, unless a positive cause is known. It is astonishing how young children of both sexes are led to self-abuse; and, of all the causes of epilepsy, as far as his observation has extended, this is the greatest and worst.

In one of the cases referred to, a child, aged three years and six months, had fingered and pulled at the vulva, until the vagina, for some distance up, was enlarged enough to enter the end of a full-grown thumb. In this case the following prescription was recommended:

℞	Belladon. Fld. Ext.	gtt. xl.
	Potassii Brom.	ʒiii.
	Aquæ	℥iv.

M. ' ʒi ter die. Also, one-grain pill of iron by hydrogen, at meal time.

Remedy for Intestinal Worms.—Mr. E. C. Haserick, of Lake Village, Mass. (*Boston Journal of Chemistry*), a chemist of some note, who has spent considerable time in investigating the habits of intestinal worms in animals, states that worms in horses may be treated by simply keeping the external orifice well anointed with lard, and that this remedy will completely cure every case of worms in the intestines in one week. From his observation he is satisfied that worms in the intestinal canal cannot propagate their species without access to light and air, and the prevalent idea that the parasitic ovum is deposited in the mucous follicles of the stomach and intestines is entirely incorrect.

The intestinal cavities are not the natural breeding-places for any variety of species, and the instinct of the worm leads it to crawl to the anus, and then outside the folds of the sphincter muscle the eggs are deposited and hatched. The process is a rapid one, the egg requiring but five or six hours after it is deposited, to germinate and produce a new animal, which at once enters the intestinal canal as its natural feeding ground and home. As the life of the worm does not exceed six days, he claims that if the eggs can be destroyed so as to prevent repetition of life, the animal will in one week be entirely free of the trouble, the dead worms passing away in the fæces.

In pursuing his investigations regarding the habits of worms, Mr. H. tried numerous agencies for an external application, before sure of the virtues of lard for the purpose. He says he has observed the worms approach the external orifice, move about, and return to die, being unable to lay their ova upon the oily surface. No internal medicine of any kind is necessary.

He also asserts that children can be relieved in the same way, by the application of lard to the anus. The severe itching in that locality is caused by the parasites crawling to the surface to deposit their ova, and if this can be prevented, so that no new families may hatch and colonize, the old ones soon die out, and relief is given.

Treatment of Hysteria.—In the Rudolph Hospital, at Vienna, sulphate of aniline has been used for hysteria in the female, and in a case of pain of lower extremities which could not be traced to a particular cause, with the effect of producing cure. Four grains were given daily in powder, and the patients were cured in a few days.—*Druggists' Circular.*

Liquor Calcis in Albuminuria.—A German practi-

tioner recommends lime-water as a diuretic in acute Bright's disease and general anasarca. He used it with success in one case, the urine gradually increasing, the albumen diminishing, and the tube casts increasing.

Death from Gonorrhœa.—Samuel Jepsum, M.D., of Cincinnati (*Cincinnati Med. Repertory*), alludes to the following death from gonorrhœa: A male, aged 40, was admitted into the Cincinnati Hospital with gonorrhœa and painful prepuce, accompanied with marked swelling and redness. In a few days the entire organ was affected, the inflammation invaded the abdominal walls in right inguinal region, and finally implicated the scrotum. He never had any sore, either on the glans or the prepuce.

The prepuce and distended scrotum were freely incised, quite a quantity of serum evacuated, and a fomenting poultice was ordered to be applied to the affected parts, with tinct. ferri chlor., gtt. xx., whiskey ℥ ss., and beef essence ℥ ij., every three hours. In ten days after admission, he died of exhaustion. At the time of death, one-half of the glans penis was destroyed, also the anterior portion of the scrotum, exposing to full view the testicles, or what was left of them—for the right one had entirely sloughed away, and the left one was assuming a gangrenous appearance, when death interfered and ended the patient's sufferings.

A Simple Cause for Severe Convulsions.—Dr. Nathaniel Field, M.D., of Jeffersonville, Ind. (*The Western Journal of Medicine*), states that some years ago a small boy about five years of age, living in his town, while in apparently good health, was suddenly attacked with an epileptic fit, from which he soon recovered. The parents were much surprised at the occurrence, and were unable to account for it. About two weeks afterwards he had another strong convulsion, lasting several minutes; but it passed off without any constitutional disturbance. No cause for the attack was detected by him or other practitioners. In a day or two the fits returned, and were repeated at short intervals for about ten days, during which time he is confident he must have had a thousand. Every resource in his power was exhausted to relieve him, and three eminent medical professors examined the child from the crown of his head to the soles of his feet, but no local irritation was detected. After carefully watching the commencement of the paroxysms, he observed that the muscles of the left side of the face invariably began to twitch on the recurrence of a fit. After a convulsion had passed off, and while in a state of unconsciousness, he raised the upper lip as high as possible, and lo, and behold! the corona of the second canine tooth, instead of having caused by its pressure the absorption of the root of the deciduous tooth, had passed behind it and forced it through the alveolus and gum and into the lip. The gum was slit vertically and the old tooth removed. In less than an hour the convulsions began to subside, and before day they were entirely gone, and never appeared again.

It is a humiliating reflection, he says, in conclusion, that five old and respectable practitioners, and two of them professors in medical schools, should allow a child to have fits for ten days, the result of so simple a cause, and not sooner detect it.

A Case of Imperforate Anus.—Dr. S. L. Sprague, of Boston, Mass. (*Boston Med. and Surg. Journal*), reports a case of imperforate anus in a female child, born August 14th, 1868. On the sixth day after birth, the fæces were found to pass in a fine stream through a small opening, at the edge of the vagina at the posterior commissure. This opening was of the size of a small probe, which was passed in and found to enter freely into the rectum. The opening was in the posterior commissure of the vagina, where the integument joins it on the perinæum. About a week after the deformity was noticed a probe was passed through the opening and pressed down upon the perinæum, and then an incision was made which gave free exit to the fæces. Soon afterwards this opening gradually narrowed, which obstructed the fæces; the bowels became swollen and hard. On the 19th day after the first operation, a director was passed, and after dividing the integument the two openings were brought into one larger one. The fæces have passed freely since, and the child grows rapidly and is perfectly well.

A Remarkable Case of Imperforate Anus.—The daughter of a Jew called Teutonicus came into the world without an anus, passed her fæces by the vagina, and lived to the age of a hundred years.

The Cattle Disease in Auvergne.—A writer in the *Boston Medical and Surgical Journal* publishes the following results of the investigations of the Commission appointed by the Paris Academy of Sciences, last summer, with reference to the cattle plague in Auvergne: 1st. That blood taken from a charbonous animal can transmit charbon when the presence of bacterids cannot be discovered by the microscope. 2d. That charbonous blood containing bacterids in large quantities loses its virulence by desiccation, and does not regain it by being liquefied by water, although the bacterids remain perfectly visible. 3d. That the blood of rabbits dead in consequence of inoculation of charbon always contained bacterids, even when the liquid inoculated contained none; whilst among ruminants, the ox and sheep dead from like inoculation and from the disease taken in the natural way, the presence of bacterids in the blood was not constant. They are sometimes found and sometimes not; and when not found, the virulence of the blood tried by inoculation was none the less active. The Commission advocate the internal and external administration of phenic acid.

Removal of the Entire Tongue.—Dr. Fenwick, of Montreal, has removed the entire tongue, on account of epithelioma, by an operation speedy and bloodless. The mouth was entered from the floor, the incision being in the median line, between the chin and hyoid bone, the dissection being carried between the genio-hyoid muscles. Through this opening the chain of an écraseur was carried on a long curved needle, back to the base of the tongue, close to the epiglottis. The process of cutting through the tongue with the chain occupied nine and a half minutes. The case progressed most favorably, the patient being able to travel to his home, a distance of 190 miles, on the twelfth day after the operation.—*N. Y. Medical Journal.*

Immense Number of Worms in an Infant.—Dr. Dow (*Richmond and Louisville Medical Journal*) reports a case to which he was called, where the patient was an infant ten months old, and who was in a somnolent condition; abdomen tumefied, and during sleep would writhe in its mother's arms; mouth twitching. Inquiry revealed the fact that the child had been allowed to eat an unlimited quantity of vegetables of all kinds, and green and ripe fruits. The pulse was about 130, and she had just vomited worms. An emulsion of turpentine, every four hours, followed by calomel, was ordered. The next day she had had several passages, consisting principally of lumbricoides, with

a little mucus, the former partly dead and living. The urine was high colored; appetite normal; worms continued to be evacuated. Three days after the emulsion was discontinued, and spigelia, senna, and santonine substituted. With this treatment the worms passed freely, as for five days she passed little but the worms, many of which were four inches long, and none under an inch. The patient made a good recovery.

Treatment of Hydro-Thorax.—At the annual congress of German naturalists and physicians, Prof. Ziemssen, of Erlangen, spoke of thoracentesis for hydrothorax due to non-inflammatory processes. He resorted to this little operation for the removal of fluid where there was a high degree of pressure on both lungs, consequent upon disturbances in the circulation, in acute and chronic Bright's disease, tumors in the thoracic cavity, etc. He usually made use of the ordinary test-trocar, and did not consider it necessary "to use special precautions for preventing the entrance of air, as this was perfectly harmless."

Comparative Frequency of Skin Affections.—Tilbury Fox, M.D., Lond., M.R.C.P., Physician to the Dermatological Department in the Charing Cross Hospital, publishes in the *Journal of Cutaneous Medicine* the comparative frequency of the several varieties of skin affections in a total of 500 new cases which came under his care at Charing-Cross Hospital. Eczema existed in 91 cases, or 19 per cent.; of these, 41 were male and 50 female. Scabies was present in 73 instances, or in 15.7 per cent.; in 39 females and 34 males. Prurigo occurred in 32 persons, or in 6.1 per cent.; in 16 males and 16 females. The men were all above 52, the women above 42. Syphilitic eruptions were present in 44 instances, or in 9.5 per cent. Lepra vulgaris, 27 cases, or 5.5 per cent., half males and half females. Contagious impetigo, in 23 cases, or 4.7 per cent. Acne simplex, in 16 cases, or 3.4 per cent. Acne rosacea, 2 cases only. Vegetable parasitic diseases 43 cases, or 9 per cent.; of these, 8 were instances of tinea tonsurans; 2, of tinea favosa; 8, tinea decalvans; 14, tinea (or perhaps) circinata; 9, tinea versicolor, and 2. tinea sycosis.

Cannabis Indica in Senile Catarrh.—Dr. J. Curran Waring (*The Practitioner*) has found cannabis an invaluable remedy in catarrhus senilis. He administers it in ten-minim doses, gradually increased. He believes that as an anodyne it is immensely superior to every other drug.

Dislocation of both Humeri into the Axillæ.—J. W. Grosvenor, M.D., of Lockport, N.Y. (*Med. and Surg. Reporter*), mentions a case of double dislocation of the humeri into the axillæ, which happened to a wood-chopper, aged 61 years, who fell from a log, and pitching forward, struck on his hands. His method of reduction was the ordinary one of extension from the lower end of the humerus, with the heel in the axilla. The reduction was accomplished without an anæsthetic. The head of each humerus could readily be grasped by the hand in the axilla, so that the genuineness of the case is undoubted.

Sulphuret of Potash in Whooping-Cough.—Dr. Thackelcan (*Dominion Med. Journal*) recommends sulphuret of potash in whooping-cough. He gives one grain for each year up to four years of age, and after that half a grain for each additional year, in a mixture of syrup and water. The medicine should be well diluted.

Phosphorus in Locomotor Ataxia.—A lady, aged 22, who had for some time been irregular in her menstrual periods, was exposed to cold and wet. Her menses entirely ceased, and soon all the symptoms of locomotor ataxia set in. In attempting to walk, she staggered and swayed her body from side to side to preserve the equilibrium. She would suddenly halt to recover herself, and then would plunge forward, as if in a hurry to reach the object desired. She was unable to feed herself, and her speech was also affected. Potass. bromid., grs. xv., ter in die, was immediately prescribed, together with electricity once a day. In a few days the dilute phosphoric acid, minims xv., ter in die, was commenced. The next day her menses came on, and in a short time she began to improve. In a few days the dose was increased to 20–25, and then to 30 minims. After ten or twelve days the acid was omitted, and pyrophosphate of iron was given for a week, and she then returned to the acid. The electricity was then continued every alternate day. In two weeks the patient was able to sit up and had sufficient control over her upper extremities to knit, and in a month she could walk about tolerably well. It is now over two months, and she can take long walks and work almost as well as ever.—Wm. Lambert, *in the N. Y. Medical Journal.*

Treatment of Threatened Abortion.—Tincture of gelsiminium, in five-drop doses every half hour, is an excellent prescription in uterine hemorrhage, being of special value in cases of threatened abortion.

A New Mode of Examining the Urine.—Sir Henry Thompson (*Lancet*) recommends the following mode of procuring a pure specimen of urine without the admixture of urethral products, which has never been recommended or practised by others: Pass a soft-gum catheter of medium size into the bladder, the patient standing, draw off all the urine, carefully wash out the viscus by repeated small injections of warm water, and then permit the urine to pass, as it will do, guttatim, into a test tube or small glass vessel for purposes of examination. The bladder ceases for a time to be a reservoir; it does not expand, but is contracted round the catheter, and the urine percolates from the ureters direct. Virtually, the ureters are lengthened as far as to the glass. By this procedure you have a specimen, which, for appreciating albumen, for determining reaction, and for freedom from vesical pus and even blood, and from cell growths of vesical origin, is of the greatest value, and will often furnish the only data previously wanting to accomplish an exact diagnosis.

The Treatment of Umbilical Hernia.—Dr. W. Mussey treats umbilical hernia in infants in the following manner: "The hernia is pressed back with one forefinger when the thumb and index finger of the other hand gather up the integument, invaginate it, and retain it until a piece of adhesive plaster, one and a half to two and a quarter inches wide, long enough to extend two-thirds of the circumference of the body, is applied. It may be necessary to apply it every third or seventh day. If the plan is persevered in a cure is certain to result.—*N. O. Journal of Medicine.*

Artificial Digestion.—Dr. W. Marcet has contrived a method by which the natural process of digestion is imitated by taking hydrochloric acid and pepsin, and adding these, along with water, to a quantity of meat, allowing the whole to simmer over a water-bath at about the temperature of the body. When the meat was sufficiently broken up it was strained, and the acid neutralized by carbonate of soda, when it was ascertained that the product was of a most agreeable character, easily digestible, and containing a vast deal more nourishment than common beef tea.—*Med. and Surg. Reporter.*

THE TREATMENT OF CARBUNCLE.—Mr. Paget, in a recent lecture on Carbuncle, pronounced the customary incision, crucial or otherwise, utterly useless, and gave the following rules for the treatment of that disease:

Now you may ask what I should set down as the things to be done for a carbuncle. In local treatment, one of the best things you can do, if the carbuncle is small, is to cover it with emplastrum plumbi spread upon leather, with a hole in the middle through which the pus can exude and the slough can come away. That, occasionally changed, is all the covering that a small carbuncle will need. It is difficult thus to cover the whole surface of a large carbuncle, and to keep it clean; therefore, I think that the best application for that is the common resin cerate. This should be spread large enough to cover the whole carbuncle, and over it should be laid a poultice of half linseed-meal and half bread. And, if you want to exercise your skill, learn to make that poultice well, and to put it on well, and to keep it in its place well. That mode of dressing the carbuncle, so far as the materials are concerned, will last through its whole course; but whilst the carbuncle is making progress and discharging its slough, you will find plenty of room for the exercise of considerable skill in dressing it, and filling up the cavities with soft substance spread with this ointment. Besides this, the carbuncles are to be carefully washed, especially with some deodorizing substance, as Condy's fluid, or weak carbolic acid, and the cavities may be syringed out with it. The importance of cleanliness is very great. You noticed in the man whom I showed you just now the spots of acne and boils around the edges of the carbuncle. This points out the necessity of care, which I suppose had not been taken there, to keep the surface of the skin adjacent to the carbuncle perfectly dry, and free from any contact with the discharge, which seems really to have the power of infecting the neighboring skin, and so producing the boils, which are apt to arise, sometimes in clusters, around the carbuncle. Of diet I have already spoken to you. Of medicines I say nothing. Quinine bark, and other medicines of that class, may be given if you please, or in case of evident need, and so may aperients; but there is really no need of them in an ordinary case of carbuncle. But there is one medicine which you may find very valuable, and that is opium, especially in all the earlier painful stages of carbuncle, in which it relieves the suffering as thoroughly as incisions, or anything I know. After the early stages, even that is unnecessary, except for some patient who may be unable to sleep.

But there is one measure in the treatment of carbuncle which is seldom employed, and yet is of great importance, and that is letting the patient have very free air. The general idea that carbuncles are very dangerous diseases has commonly led to the patients' being entirely confined to bed and kept shut up in their rooms. There is in that an unnecessary care.

Treating your cases of carbuncle upon this plan, I believe you will find that the great majority will pass through their course well. I cannot tell you what the ordinary proportion of deaths from carbuncle is; but I know that carbuncles are commonly looked upon in the profession as dangerous things, and a large carbuncle on the back of the head is considered to be fraught with risk to the patient's life. But that is very far from being the case in my experience. Remembering, as far as I can, or rather guessing at the number of carbuncles I have had to treat, I should say that there is no other disease of the same extent and general severity which is attended with so little risk to life. During twenty years of hospital and private practice, I cannot have treated less than 200 carbuncles; and of these 200, four have died, giving a mortality, at a fair guess, of only two per cent. I cannot doubt that the mortality was considerably larger when carbuncles were severely cut; for the severe cutting meant often severe bleeding, and was attended with all the consequences of large wounds. Thus, though I do not know the exact proportion, I believe that the general reputation of the danger of carbuncle was well founded, and that among the reasons for the diminished mortality of carbuncles may be set down as chief, the more frequent avoidance of the custom of cutting them.—*Lancet.*

A CASE OF ARREST OF BRONZING OF THE SKIN.—J. L. Milton, Surgeon at St. John's Hospital (*Journal of Cutaneous Medicine*), publishes a case of spontaneous arrest of bronzing of the skin in a female patient, unmarried, age 20 years. Her mother states that when born the patient was of very dark color, almost black; but that in a few days she became light, and always remained so, until about eighteen months before she came under his observation. When he first saw her she complained of pain and stiffness in the feet, and the skin of the face, neck, and front of the chest, down almost to the waist, looked of a dirty clay color, with a substratum of pale dirty green, and covered with scales. Menstruation, which began at an early age, was regular in all respects, and free from any severe pain. She was put under the arsenic treatment, and confined to it between two and three months, but the stomach becoming irritable, she entirely discontinued treatment. About two years after the treatment was discontinued, she came under his observation again, and the skin of the face, though still very decidedly pale and dark, was much brighter and clearer; since then the color from the knee to the foot has become much lighter, and the arms and hands are scarcely darker than in a healthy person. The scaly patches also disappeared, and when last seen she seemed in very good health.

He gives the particulars of this case, because the spontaneous arrest of bronzing is such an extremely rare occurrence. It is called spontaneous, because he does not believe that arsenic had anything to do with the matter. Erasmus Wilson views it as an instance of melasma arsenicale; but discoloration to such an extent as this from less than three months' use of arsenic must be extremely rare.

CARBOLIC ACID IN INTERMITTENT FEVER.—M. F. C. Calvert reports (*Gaz. Méd. Paris*, 1869, *No.* 7) to the Académie des Sciences some satisfactory results from the use of phenic acid in intermittent fever, as employed at the Isle of Meurice under the direction of MM. Barranet and Jessier. The acid was used in the first place to disinfect the drains, sinks, and all other sources of miasm. It was then given internally in doses of 0.070 gr., repeated three times a day for the access of fever. Finally it was also employed hypodermically in the dose of three to four centigrammes in twenty drops of water. MM. Barranet and Jessier are of the opinion that these results demonstrate that intermittent fever is due to the presence of animal or vegetable microscopic ferments in the blood similar to those discovered by M. Pasteur.

POST-MORTEM APPEARANCES IN CHOREA AND EPILEPSY IN AN IDIOT.—M. Villard narrates (*Gaz. Méd. de Paris*, *No.* 4) at length the post-mortem appearances of the brain of an idiot subject to epilepsy and chorea, who died at the age of ten years. The cerebral lobes were asymmetrical, and there was a cyst at the base of the brain.

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CONSANGUINEOUS MARRIAGES IN THEIR RELATION TO HEREDITARY INFLUENCES.

IT has always been hard for such as believe in the reputed evils growing out of a union of kindred blood, to explain the defiant fact that, all other things being equal, it is exactly the opposite with lower animals who are so closely "bred in and in." We have had examples of thoroughbreds that for four successive generations were sired by one individual; and yet, far from showing any marks of degeneracy, have had, so to speak, their respective good qualities intensified. This was particularly the case with the celebrated bull, "Comet," whose pedigree was carefully and accurately studied by Dr. Child. Again, M. Beaudonin has lately given the particulars of a flock of merinos, "bred in and in" for a period of twenty-two years, without a single cross, and with perfectly successful results, there being no sign of any falling off in the power of propagation, but the breed actually improving. It is needless to multiply facts in support of this particular point, as all experienced stock-raisers have so far agreed upon its absolute utility, that their constant aim has been, and still is, to keep the blood as pure as possible.

By impartial interpreters of the laws of nature it has been for a long time believed that some other explanation than mere consanguinity must be offered for a good deal of the so-called deterioration of the human race by intermarriage. There can be no argument sufficiently well put to convince any unprejudiced mind that the well-known laws which tend to improve the breed in the lower animals should find such an absolute and remarkable contradiction in the human family. During the past few years every investigation of the subject has increased its scope, and we are gradually finding ourselves drifting inevitably towards some very rational, not to say purely scientific, conclusions. We have little reason to doubt that a continued study of this important question of consanguinity will tend, in the end, to the overthrow of the generally received opinion in regard to its pernicious influence. Of late, Dr. Robert Newman, of this city, as the Chairman of the Committee on Consanguineous Marriages for the Medical Society of this State, has revived the discussion, in a very elaborate and valuable paper read at the last meeting of that body in Albany. In so doing, he has so materially aided the discussion from a proper stand-point, that, in order to give our readers a sketch of what may not be inaptly termed the advanced opinions of the day, we cannot do better than take his report as the foundation for some general remarks.

The experienced stock-raiser always takes for breeding purposes, not only a sire and dam that have what are technically called good points, but pains are taken to have both in good health. The issue, under such circumstances, is, generally speaking, always good, and remains so as long as these indications are followed. If any cross is to be made with the idea of improving the breed, in order that the experiment may be successful it is necessary that there should be such a union of the progenitors as that any defects of disposition, or developments of particular parts in one, should be more or less exactly balanced by corresponding excesses in the other. The same thing would doubtless happen in the human family, if marriages could only be made in accordance with the rules of the stock-breeder. The marriage of cousins might thus actually improve, rather than deteriorate, our stock.

In the present aspect of the question, consanguinity seems entitled to shift its load of odium in a great measure, if not altogether, upon hereditary influences. The paper referred to, very properly, it seems to us, supports this view by many very interesting data. We are now called upon to believe, that so long as there is no hereditary taint present on either side of the parents, the union of kindred blood is by no means disastrous. In fact, we are being led to the conclusion that consanguinity *per se* has little, if anything, to do with lowering the vital power, and that when cousins, for instance, are physically well matched, the results are as good as in those cases in which no ties of kindred exist. The writer of the paper referred to inclines to this side of the question, and presents a great many facts in its support. With a good show of reason, it is virtually claimed that the imperfect offspring of consanguineous parents owe their deficiencies and deformities to hereditary influences. The only trouble heretofore seems to have been, that no effort was made to look for any other explanation for these defects than consanguinity. We were content to accept what at first sight seemed a plausible theory, and when once this was done, we soon found facts in support of it. But, paradoxical as it may seem, the very proofs of its truth were in reality so many arguments against it. For instance, a family of children are defective in intellect, are puny, deformed, or intensely scrofulous, and being discovered to be the offspring of cousins, the whole mystery is seemingly solved. But we are now privileged to go behind this fact, and discover a real cause underlying the fancied one; to investigate deterioration of blood irrespective of consanguinity. With our

present knowledge of hereditary transmission, we have learned that the union of similarly contaminated blood always intensifies the taint in the offspring. With what ease, then, can the apparent origin of the defects in the vital force of these children be traced out? Dr. Edward Jarvis, in a letter incorporated in the paper referred to, gives his impressions upon this point in the following assertion:—

"The law of descent governs both power and weaknesses. All the elements of the constitution—capacities, susceptibilities, tendencies, taints, etc., are heirlooms passing from generation to generation. Now, if these, or any of them, belong to both parents, they have a double probability of passing to the children. Cousins, descendants from a common ancestry, have a common heritage—of good, of evil, of power, and weakness. And if these join in marriage, their issue have a double chance of inheriting whatever qualities they may both possess.

"If, then, both parents, although cousins, are perfect in constitution and health, and have nothing to transmit but power, then their children have a double security against constitutional imperfection, and a double warranty of inherited capacity and strength. The converse is also true of cousins who have imperfections and liabilities in common. If they marry, they provide a double chance of the repetition of the same weaknesses and susceptibilities in their offspring.

"The double certainty of heritage of power and weakness seems in these cases to be due, not to the original fact that the marrying parties had a common ancestor, but rather to the circumstance that the elements of life contributed to the children were the same from both parents, and that where both were imperfect the taint of constitution, or susceptibility of disease of brain, etc., derived from one was not neutralized or replaced by soundness in these organs inherited by the other. In this view, the objection to consanguineous marriages lies not in the bare fact of their relationship, but in the fear of their having similar vitiations of constitution, and it may not be necessary to prohibit all marriages of cousins in order to preserve the unity and sustain the power of the race from generation to generation."

Dr. Newman, as we have before intimated, has contributed his quota to the subject. The results of thirty-two marriages have been very carefully and impartially reported from different sections of this and other countries, and an analysis of them tends very strongly to show that there is something weightier than mere theory upon which to base objections against a very popular belief.

Whether we may be able unconditionally to accept the view therein set forth or not, it is certainly plausible enough to stimulate an inquiry and encourage a further study of the facts on its side. These, we doubt not, will be abundant enough, if we seek after them in a properly conservative spirit.

THE SANITARY INSPECTORS.

In another column we publish a communication from the Health Board, signed by two of the commissioners. As will be seen, exception is taken to some remarks which we took occasion to make, concerning the resignations of some of the sanitary inspectors. We were at that time inclined to believe that the case was not quite as bad as from the letter alluded to, it really seems to be. We had reason to believe that the attempt to degrade the medical inspectors, to reduce them from physicians to mere clerks, etc., was altogether due to the non-medical members of the board; but the attempt to excuse this action by two of the medical commissioners lends another aspect to the affair. We regret that we were compelled to make such "grave and unqualified" charges as those referred to in the letter, but we regret still more the necessity impelled by the very facts in the protest, of still adhering to our former opinion. We yet fail to see how any physician can have "an opportunity to attend to private practice and professional appointments," when "he shall devote at least eight hours each day to the duties of their office, and as much additional time as the Board may from time to time direct." We still contend that when any board treats its medical officers as this Board appears to have done, by the showing of two of its commissioners, it opens itself to a charge of "an attempt to degrade their positions, to assign them to unprofessional and undignified duties, and to make use of them for political purposes." The passage and enforcement of a few more similar resolutions, may, in the end, tend to create a prejudice in the profession against the honest intentions of the commissioners.

Reviews and Notices of Books.

BERKELEY HILL ON VENEREAL DISEASES.—Reprint from London Edition of 1868. Philadelphia: Lindsay & Blakiston. 1869.

In this work Mr. Hill has done, and very creditably, for the English venereal interest, what Dr. Bumstead did for the American some years since; that is to say, he has brought together, in a very compact and convenient form, the doctrines of the leading syphilographers of our time, accepting and endorsing the modern views of Ricord, Bassereau, and others, gathering from all sources the advances and improvements in the knowledge and treatment of venereal diseases; thus presenting to the English medical public what they have sadly needed for some years, viz., a fair and comprehensive statement of modern venereal doctrines and treatment.

The author's own position is very modestly taken; he neither combats exploded theories nor obtrudes ill-digested speculations. A contradictory case is introduced now and again among the accepted theories, without comment, as if to show that while accepting them he does so with his eyes wide open to apparent exceptions. He presents no views with the positivism of a partisan: in fact, while giving in his adherence to important and well-settled doctrines, he has rather the air of one who thinks they are well enough for the present, but for the future, *quien sabe?* For example, in speaking of the

views of Bassereau (p. 35) in regard to the distinct nature of the poisons which produce the chancre (infecting) and the chancroid, he says, "These views have received attention in all countries, and are pretty generally adopted—but," he cautiously proceeds, "while admitting the truth of Bassereau's conclusions, it must be observed that we do not know at present the whole connection between venereal ulcers and constitutional syphilis; it is not necessary to refuse to believe in this essentially distinct nature of the principle exciting chancres (chancroids) from that of the virus of general syphilis." Again (p. 37), after considering M. Clerc's theory of the transformation of the true infecting chancre into the chancroid, and saying that M. Clerc scarcely proves his position, he simply remarks, that "a change so surprising is *probably* too extraordinary ever to take place." Mr. Hill is, however, too much in advance of other English venereal authors to warrant us in cavilling about the manner of his phrases, in giving his adherence to these vital points. We are sorry to find that the venereal nomenclature has not been improved by Mr. Hill. Adopting the usage of the German schools, he uses the term *chancre* to express the non-infectious disease; he uses also synonymously, *local chancre*, *local ulcer*, *suppurating chancre*, non-infecting chancre, chancroid sore. It seems a pity that Mr. Hill should not have imitated the simplicity of Dr. Bumstead's style in this matter, as he has so evidently done in his designation of the infecting chancre, which he terms—not the "*initial lesion*," after Bumstead—but the "*initial manifestation*." This he uses to head his four pages on this subject, and occasionally in his description; but, though original, it is evidently too unwieldy for common use, and he soon compromises upon initial ulcer; but this scarcely answering the purpose, he finally and naturally, as though he couldn't help it, adopts the "*initial lesion*." Mr. Hill had an opportunity to render good service in simplifying the wordy difficulties of venereal literature, but he has only aided to increase their confusion. As "surgeon to the out-patients of the Lock Hospital of London," etc., the results of Mr. Hill's observations on some important venereal points are worthy of notice. He is of the opinion that intensity of action of the syphilitic virus is probably not an evidence that it will communicate a like intensity of action, but thinks hereditary syphilis the more active where the parents have an active form. He believes in the existence of the mixed chancre. He believes in the possibility of syphilis being contracted from a vaginal discharge without solution of continuity, and thinks it probable that syphilis may be acquired from a gonorrhœal discharge in a syphilitic subject; believes that the absorption of the syphilitic virus occurs at once, and hence that cauterization is of no avail; does not believe that the source of contagion influences the period of incubation, which according to his observation averages twenty-four days, extremes ten and forty-six. With the exception of the assumed communicability of syphilis through simple leucorrhœal and gonorrhœal discharges, his experience tallies with the majority of recent observers. That exception, however, is an important one, and it is to be regretted that Mr. Hill has not adduced well-observed cases to illustrate the grounds of his belief. Mr. Hill quotes Bassereau, Bumstead, Babington, and Didaz, as claiming that much induration of the "initial manifestation" will be followed by a severe course of syphilis, and cites several cases where, in his experience, a contrary result occurred, closing without comment. He claims that enlargement of the glands is not always present in syphilis, and quotes a single case where the initial lesion was never distinctly indurated, which was followed by a papular eruption, but by no change of the lymphatic glands of the groin; he does not indicate the site of the initial lesion or the sex of the patient, but we are left to infer that the lesion was in a locality having lymphatic connection with the groin. Mr. Hill's experience in this instance is contrary to that of most observers, and must be conceded a very exceptional case—one which our author himself does not consider of much value, inasmuch as on the opposite page he speaks of enlargement of the glands as one of the chief diagnostic marks of true syphilis. He considers inoculation as a "useless test in the diagnosis of venereal sores." First, because the syphilitic virus may be present in a patient suffering with local ulcers also, and the pus of those ulcers might be inoculable notwithstanding the presence of general syphilis. Second, that while the natural secretion of the syphilitic sore is not inoculable on its bearer, if the sore is made to suppurate from irritation, the pus from it may become freely inoculable. Inoculation is a means of diagnosis esteemed by Ricord, Bassereau, and other distinguished syphilographers, not as an unerring test under all circumstances to distinguish between specific and non-specific venereal lesions, but as a valuable guide in certain doubtful cases; and while in such exceptional cases as Mr. Hill quotes, it may fail to give positive proof, yet this should not make us unmindful of the fact that inoculation, in the hands of Ricord and Bassereau, has done much to demonstrate the distinct nature of the venereal poisons, and in intelligent hands will often prove a valuable aid in determining the character of doubtful cases. In the brief account of the constitutional lesions in syphilitic disease which Mr. Hill presents, there is nothing which calls for especial remark. He is an advocate for early mercurial treatment, by means of which he asserts that the preliminary fever is prevented and the rashes are postponed or assume a slower course and are limited in extent, but adds that mercury seldom wholly prevents the general symptoms. This is an extreme view of the power of mercurials to influence the early manifestation of syphilis from which not a few modern practitioners will distinctly dissent. Mr. Hill's modes of administering mercury are by the mouth, by inunction, by fumigation after Dr. Langston Parker's plan, and subcutaneous injection. He recommends for injection an aqueous solution of the perchloride in cases where an immediate mercurial impression is required, and says that, in eleven cases under his care, injections of one-fifth of a grain produced mercurialization after about one grain had been injected. He does not mention the occurrence of abscess at the point of injection, which invariably follows the injection of calomel hitherto in use. We are hence at liberty to infer that an aqueous solution of the perchloride of mercury is the preferable form for use in mercurial hypodermic injections. Besides the iodides of potass and iron, Mr. Hill uses the bromides of potass and ammonium in the later stages of syphilitic disease.

Mr. Hill's directions for the treatment of chancre (chancroid) are not very decided. He rather inclines to avoid cauterization, but thinks "it had best be used when the ulcer first appears, or if it has lasted a long time and resists other treatment, or its presence preys on the patient's spirits; but otherwise, it may be treated by astringent lotions;" thinks Ricord's carbo-sulphuric paste the best caustic to be used. For our own part, we look upon the neglect of endeavors to destroy the virulent character of the chancroid at the earliest possible period and at any stage (barring a highly inflammatory condition) as simply culpable, using the fuming nitric acid for the small ulcers, reserving the carbo-sulphuric paste for those of considerable magnitude. Mr. Hill recommends incisions for the relief of the tension in

inflamed sloughing chancroids. This procedure, in view of the certainty of inoculation of the cut surfaces, seems of questionable utility, to say the least.

The chapter on gonorrhœa is brief and trite. We were somewhat startled on noticing a recommendation to use injections of nitrate of silver in unlimited quantity (a bag syringe full) of a strength of from twenty to thirty grains to the ounce, where the discharge comes from the bulbous portion of the urethra. The remark following, that "this active treatment sometimes excites smart inflammation and *perineal abscess may follow*," appears cool and candid, but does not cover all the probable effects of such treatment. We have seen intense inflammatory action resulting in stricture at several points along the urethra as a direct sequence of one full injection of a solution of nitrate of silver twenty grains to the ounce, and believe such result a very probable one in the majority of such experiments. Applications of a strong solution of nitrate of silver are of undoubted value where the discharge comes from the deeper portions of the urethra, and from a limited surface; but five or six drops applied through the endoscope, by means of a bit of soft cotton or sponge directly upon the granular surface, as you would touch a granular conjunctiva, or depositing it upon the diseased locality by means of a long syringe, is as much as we should consider safe. Not a little of the fluid thus introduced is neutralized by the secretions present, but enough remains to make the application curative and quite sufficient for safety from troublesome results.

Any work treating of gonorrhœa cannot be considered complete without a consideration of one of the most common and serious results of that disease, one which frequently complicates it in persons who have previously suffered from gonorrhœa, and which is one of the commonest causes of the chronic stage of the disease, viz., stricture. Mr. Hill's neglect to introduce a chapter, and a full one, on this important feature of gonorrhœal disease, can only be atoned for by introducing it into the next edition of his work. In the chapter on preventive measures, Mr. Hill makes some valuable remarks, as follows, viz.: "That there should be easy access in all towns to advice and treatment for venereal patients free of cost to them. That *communication of venereal disease should be made an offence punishable by law.* That all patients in public institutions, and all prisoners afflicted with venereal disease, should be detained until their local lesions are cured. That seamen, both in the mercantile and in the government service, should be examined before leave ashore is granted, and soldiers, when changing quarters, or when going to or returning from detached duty, should also be examined." These are wise and practical suggestions which, if adopted by legal enactment, would doubtless soon diminish in a very marked degree the prevalence of venereal disease. We desire to commend in an especial manner the plan which Mr. Hill has adopted of giving a true, vigorous, and well-digested summary at the end of each chapter of his book. This addition to the voluminous index which closes the volume makes Mr. Hill's work the most convenient and ready book of reference we have met with, and we should be glad to see this plan adopted by the writer of every work intended for the use of practical medical men.

London Charities.—The Bishop of London states that there now exist in London more than a thousand associations for charitable purposes, administering annually about £4,000,000, in addition to the regular assessment of the poor-rates. Yet there is such a spread of want, misery, pauperism, and crime in that metropolis, that the authorities are at their wits' end to meet it.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, March 24, 1869.

Dr. L. A. Sayre, President, in the Chair.

SEROUS APOPLEXY.

Dr. Finnell exhibited the left hemisphere of the brain removed from a gentleman fifty-seven years of age. The patient was a broker, and devoted all his time to his business. About fifteen years ago his health began to fail him, and he became exceedingly weak and nervous. He then took a trip to Europe, with the result of apparently restoring his health. On his return, he resumed business, but in consequence of constantly recurring attacks of tremulousness, inability to sleep, etc., he was forced to give up and retire. This cessation from business cares brought its reward in a proportionate improvement in his condition, continuing until a few months ago, when his nervous symptoms again made their appearance, terminating eventually in his death. This latter event was quite sudden.

The brain only was examined at the autopsy. Both lateral ventricles were distended with serous fluid, the quantity being estimated at twelve ounces. The anterior, middle, and posterior cornua of the ventricles were almost effaced. The foramen of Munro was large enough to admit the index finger. The vessels on the inner walls of the ventricles were in an almost varicose condition. There were no appearances in the neighborhood that would lead one to suspect the existence of previous inflammatory action.

Dr. Finnell considered the specimen one of serous apoplexy, this making only the second that he had ever seen.

The second specimen exhibited by Dr. Finnell was a small encysted tumor removed from the temporal region of a young man, aged twenty, which was of interest only in connection with the accidental division of the temporal artery during the operation.

DEATH FROM CHLOROFORM IN A CHILD SIX YEARS OF AGE.

Dr. Finnell, thirdly, exhibited a series of specimens consisting of the heart, kidneys, and spleen removed from a little girl six years of age, whose death was occasioned by chloroform. She applied to the New York Eye and Ear Infirmary for treatment of convergent strabismus of the left eye. She was given chloroform by Dr. Cutter, of the institution. The quantity as mentioned was at first one drachm. This was placed upon a towel and held carefully to the mouth. Not coming fully under its influence, a second drachm was administered in like manner. Dr. Delafield proceeded to divide the internal rectus while the patient was yet not completely under the influence of the anæsthetic. No more chloroform was, however, given. The child was quite restless during the operation, and a few moments after it was finished, it was discovered that the patient had ceased to breathe. All the ordinary efforts to restore respiration usually made use of were futile.

The autopsy was made in the evening, eight hours after death. The right side of the heart was much distended with dark fluid blood. The kidneys were enlarged, as was also the spleen. The ovaries were respectively the size of a kidney bean. Both lungs were collapsed and comparatively free from blood. The time from the commencement of the anæsthetic until death was fifteen minutes.

Dr. Finnell considered it remarkable that death should occur in this instance, when anæsthesia was not even complete.

NECROSIS OF OS CALCIS.

Dr. Sands exhibited portions of necrotic tissue taken from the os calcis. The patient from whom they were removed came under his observation five years ago, being then about twelve years old. At that time he was suffering from an acute inflammation of the bones of the left leg and of the right foot. In the left leg there seemed to be but little doubt that the disease was inflammation of the bones not involving the articular extremities of the tibia. In the foot, however, the symptoms led Dr. S. to believe, and he continued so to believe for a long time, that the disease was not necrosis, but caries involving a number of the tarsal bones. The patient was treated in the usual way for some time, and came near losing his life in consequence of an extension of the inflammatory disease to the joint. He survived this, however, and in the course of time it became a question of operative interference for the removal of dead bone then known to be present. The operation on the left leg for the removal of necrotic tissue was performed in Dec. 1866, and as much was taken away as was consistent with safety considering the proximity to the joint. The result on the whole was satisfactory, and the boy recovered in due time. It was the belief shared in by Dr. Sands, and also by Drs. Parker and Van Buren, who saw the case, that the disease in the right foot was caries. Shortly after the operation upon the leg, the diseased foot became much swollen, the ankle joint became involved, and Dr. Van Buren advised the patient to go into the country with the view of ultimately being prepared to submit to amputation at the ankle joint. After his return the patient and his friends would not consent to the measure, and with the advice of Dr. Markoe, Dr. S. attempted to save the foot by gouging the os calcis, and removing from its substance numerous pieces of dead bone. Before the operation was finished the whole of the substance of the bone was removed, leaving only a shell of compact tissue so thin that the ends of the fingers could be felt through it. The specimen was of interest on account of the difficulties attending the diagnosis.

Dr. Sayre remarked that during the past twenty years he had in numerous instances gouged out the os calcis in a similar manner, with good result. One case he referred to particularly in which the substance of the entire bone was removed and the patient was able to walk perfectly well. By resorting to this method of operating he was convinced that amputation could be prevented in hundreds of cases.

CODFISH BONE REMOVED FROM PERITONEAL CAVITY.

Dr. Whitehead presented a codfish bone removed from the peritoneal cavity while operating for a strangulated ventral hernia. The tumor was of considerable size, situated nearly in the median line at the junction of the umbilical and hypogastric regions, and rather to the left. After making the necessary incision, relieving the stricture and passing his finger around to see if there were any other obstructions, he discovered the foreign substance referred to in the right iliac region. It was so closely adherent to the anterior abdominal walls in that situation, that it seemed to be fastened by one of its extremities. It was finally removed after considerable difficulty. The tumor was formed by a portion of the omentum. On making the incision into the median line, two or three mesenteric ganglia matted together came into view, which at first caused the operator to think the mass might be the fundus of the uterus, or a fibrous tumor connected with the womb. The wound was closed with interrupted sutures, and at the time of reporting the case, thirty-six hours subsequent to the operation, she was doing well.

Dr. W. stated, in conclusion, that Broca, in his work on Strangulated Hernia, makes frequent reference to the presence of foreign bodies of a similar character causing inflammation of the hernial sacs. He also in this connection referred to the case reported by Louis Petit, in which a lark's foot had been discovered in the peritoneal cavity while operating for hernia.

Dr. Briddon exhibited a beautiful specimen of corpus luteum removed from the body of a woman who had died in the ninth month of pregnancy.

ANOTHER DEATH FROM CHLOROFORM.

Dr. Squibb, by invitation, related a case of death by chloroform. The patient was a lady, a native and resident of Georgia, the wife of a physician, and mother of eight children. She had come to New York for the purpose of having an epithelioma of the tongue removed. Drs. Hutchison and Krackowizer were in attendance upon the case, and advised the operation, which was performed by the latter. Dr. Squibb administered the anæsthetic. The chloroform was first given from the bottle, without pouring any out. This bottle had the capacity of a pint, contained but two ounces at the bottom, and into the liquid a coil of paper was immersed. The chloroform found its way to the top of the coil by capillary attraction, and then gave off its vapor. She came quite readily under the influence of the chloroform, and passed through the intoxicating stage quite rapidly. She did not, however, become very thoroughly anæsthetized at first. The tongue was examined, and it was found sensitive; more chloroform was given, and the operation was started. She again manifested signs of a lack of the desired anæsthetic effect; the jaw, for instance, could not be depressed. Profound anæsthesia was then speedily produced by allowing her to inhale the chloroform from a napkin. The operation was then fairly commenced, during which the chloroform was, of course, suspended. The operation was a long and very difficult one, but during all the time her pulse remained good, and she was well watched. After the removal of the morbid growth, and just as Dr. Krackowizer was about to pass a stitch into the wound, the patient suddenly fainted, and despite all the efforts that were made for a long time, she never breathed again. No post-mortem was granted. It was Dr. Squibb's opinion that the cause of death was a direct poisoning of the nervous centres by the chloroform.

VAGINAL PREGNANCY IN A COW.

Dr. Loomis exhibited the vagina of a cow containing the bones of a fœtus of about seven months. The animal had miscarried for three years previously. She was supposed to be pregnant last year, but after enlarging for some time she ceased to do so; the idea of her pregnancy was given up, and she was fatted for beef and killed. In the process of dressing, the tumor referred to, with the contents, was found. The specimen was presented on behalf of Dr. Benedict, of Long Island.

Death of a Medical Author.—The death of Henry G. Wright, M.D., of London, is announced. He died of chronic pulmonary disease, at the age of forty-one. He was Physician to the Samaritan Free Hospital for Women, and the author of several interesting medical works.

EAST RIVER MEDICAL ASSOCIATION.

REGULAR MEETING, JANUARY 5, 1869.

DR. WILLIAM NEWMAN, Vice-President, in the Chair.

THE COMPLICATIONS OF PARTURITION.

DR. NEWMAN read a paper on the above subject.

DR. BUTTLES had always treated a second fœtus as a placenta, when retained after delivery of child—he followed the womb down in the abdomen, grasping it with both hands. He does not waste time waiting for the placenta to deliver itself, but goes after it at once. If he finds the fundus uteri presenting any irregularity, he then ceases to make traction upon the cord, lest inversion of the organ follow, but passes his hand *into* the womb and detaches the retained placenta with his fingers, and brings it out in his hand.

Manipulating the fundus brings on contraction and expels the second child.

In a case of placenta prævia, he partially detached it from the womb by rotating his index-finger all round inside the os, but finding the hemorrhage still continue, he had to separate it wholly.

DR. ABBOT asked, if, in a case of placenta prævia, plugging the vagina would not be well; for his part, he could see no use in partially detaching the placenta, and in his opinion the use of the dilator was unnecessary.

DR. BUTTLES thought it good practice to plug the vagina.

DR. M. L. SMITH mentioned a case of placenta prævia. The patient, the mother of seven children, was taken in labor on leaving the breakfast-table. She was very large, so much so that he suspected multiple pregnancy; upon rupturing the membranes, a great quantity of water escaped. The woman fainted, became quite blanched in consequence of the occurrence of profuse bleeding, the os not being much dilated. Having detected partial placenta prævia he commenced to detach, and sent for ergot and forceps. There being no pains, he gave 3 j. of ergot every fifteen minutes, the patient meanwhile losing blood continually. He kept his hand in the vagina, applied the forceps, still no pains, not indeed until he made traction did they come on; when the child came away it was followed by a large quantity of clotted blood; the womb subsided, and the patient was bandaged.

A messenger summoned him during the night; bleeding had recommenced, the womb was flabby and floating; he put ice in vagina, and applied cold douche; the womb contracted, and all went well for one day.

The second day flooding set in again; again controlled; went for two or three days more; opium administered in large doses; woman exhausted. The hemorrhage was finally controlled with the aid of Dr. Cooke. Six weeks after, the patient, weak and blanched, was able to sit up. Dr. Smith could find no cause for the repeated flooding.

DR. BARRY endorsed Dr. Buttles's plan in delivering the second child at once, without waiting; ordinarily, the presentation of the second child is an arm or foot.

In placenta prævia, if the os be *dilatable*, he introduces his hand and arm, separating the placenta completely from the womb, seizing the feet and delivering. No better tampon than the hand and arm can be used; these once introduced, the bleeding is completely controlled; he never used Barnes' dilator. If the os is not dilated it will be generally found dilatable; once you get your hand in, the patient is safe. He thinks the principal cause of post partum hemorrhage arises from not attending to the abdomen. From the moment the child is born he *never* leaves the uterus unsupported.

After the transaction of other business, the meeting adjourned.

Correspondence.

MEDICAL MATTERS IN PARIS.

(FROM OUR SPECIAL CORRESPONDENT.)

ASSOCIATION OF RHEUMATISM WITH CHOREA.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—As I have had occasion already to notice, rheumatism, in the estimation of European physicians, tends continually to enlarge its sphere of influence, and to take its place as a widely ramifying constitutional disease by the side of scrofula and syphilis. Under the name of arthritis, M. Bazin attacks rheumatism of the skin as endopericarditis; M. Bouilland pursues rheumatism of the heart, and Roger, Sée, Botrel, Axenfeld, Trousseau, and others, detect its malignant intervention in the production of neuroses, and especially the chorea of childhood. The connection between rheumatism and chorea had already been signalized by Stoll and Sauvages; by Bouteille, who first distinguished chorea from the epidemic St. Vitus' dance, with which it had been confounded by Sydenham; and in England Copland, Bright, Abercrombie, and Begbie, had insisted with more or less emphasis on the common parentage of the two diseases. This view was, however, deliberately defended *in extenso* for the first time, in 1850, by Botrel, in an inaugural thesis, and by Sée, in a memoir subsequently recompensed by the Academy. Trousseau, in his Clinique Médicale, adopts the views of Professor Sée, whom he accuses, nevertheless, of a certain exaggeration; and Roger, physician at the children's hospital, in a series of articles recently published in the Archives of Medicine, furnishes a number of observations tending to prove that in children rheumatism and chorea accompany and alternate with one another, as frequently as rheumatism and endopericarditis in adults.

Rheumatism can no longer be defined as a mode of inflammation characterized by its predilection for serous membranes. No tissue of the economy—fibrous, muscular, mucous, nervous—is exempt from its ravages. It is pre-eminently a general, constitutional disease, whose affections or manifestations may be classed in three groups—synovial, visceral, and nervous. Neither one of these groups is a cause of the others, but all are equally rooted in the common rheumatic vice. A patient does not have endocarditis, or rheumatic pleurisy, or meningitis, or chorea, as a consequence of his articular inflammation, or as a result of its metastasis, but the internal, as well as the external affection occurs as another symptom or manifestation of the general rheumatism that has possessed itself of his entire organism. The visceral or nervous affection may precede, or accompany, or follow the articular, just as the symptoms of pain may precede, or accompany, or follow the symptom of swelling in rheumatism of the joints. But in neither case is it relative of cause and effect that exist between the elements of the double phenomena, but a common filiation in a general condition that embraces them both.

M. Sée remarks that there is hardly an affection of the nervous system that may not declare itself under the influence of rheumatism—tetanus, delirium, muscular contractions, apoplexy, meningitis, and especially chorea, which occupies us for the moment. The professor ranks in three categories the cases in which the association of rheumatism and chorea has been observed.

1st Categ. chorea, preceded by rheumatism	acute artic.	41
	artic. pains.	30
2d. Chorea accompanying rheumatism	acute artic.	7
	artic. pains.	8
3d. Chorea accompanying external or internal rheumatism	30, of which 7 were fatal	

Finally, M. Sée ranks in a fourth category a certain number of cases (17), the only ones open to doubt, where the chorea was accompanied by a visceral rheumatism exclusively. The total is then 140.

M. Roger, for his part, undertakes to furnish cases: 1st. In which the chorea develops simultaneously with the rheumatism, or so soon after the latter affection, that the common filiation is apparent at once. 2d. Where the rheumatism manifestly engenders the chorea, which in its turn occasions an attack of rheumatism, and where this alternate generation attests the parentage of the two diseases.

The first class contains three subdivisions. (A.) The chorea declares itself during the convalescence, or shortly after the presumed cure of a rheumatism. (B.) The chorea complicates the rheumatism during its period of greatest intensity. (C.) The rheumatism and chorea make their first appearance simultaneously.

The first case is the most common, the articular inflammation seeming to transform itself into chorea with most facility during its period of decline. It might be said that the general rheumatism, having expended its violence in one direction, and forced by the strength of nature or art to beat a retreat, aimed a Parthian dart as it took to flight. There is, therefore, or should be, after the apparent establishment of complete convalescence, a moment of extreme anxiety for the physician, of which the patient is happily unconscious. The fever has fallen, or even disappeared; the swelling, pain, and heat have been exorcised at the articulations; but there remains an indefinable something, sufficient to indicate that the child is still menaced by his insidious enemy. It is at this moment that the choreic movements generally make their appearance.

Obs. 1st. Polyarticular, subacute rheumatism in a child of 11 years. 15 days after recovery a severe generalized chorea. A scarlatina complicated the neurosis, and during the fever the muscular disorder was aggravated, but diminished rapidly and *pari passu* with the exanthem. An arsenical treatment, 2.10. milligrammes a day, had been instituted for the chorea, but was interrupted by the scarlatina. The heart remained unaffected.

Obs. 2d. Extremely slight attack of articular rheumatism in a child of 5 years old; a few days after recovery occurred a severe generalized chorea. During the interval, the child had been frightened by witnessing an epileptic convulsion, but the chorea was not developed until four days later, and could not, therefore, be referred to the moral emotion, which always produces its effect immediately, when it exercises any influence at all.

Obs. 3d. The child of rheumatic parents suffers a slight attack of febrile articular rheumatism of the lower limbs, which only lasts a week. Eight days after recovery chorea commenced violently, manifesting itself by grimaces, movements of hands and feet, agitation in the gait, difficulty of speech, diminution of sensibility and intelligence. No fever, heart normal. In this case, as in many others, the intensity of the chorea was in remarkable contrast with the mildness of the rheumatism.

Obs. 4th. Acute polyarticular rheumatism, with pleurisy, in a girl of 14. Menstruation established for eleven months. Rheumatism severe, followed by a chorea of medium intensity.

Obs. 5th. Rheumatism with pericarditis in a child of 12. During the decline of the rheumatic pains, a slight attack of chorea, which disappeared in three weeks. Palpitations and rubbing sound at the præcordium persisted.

The chorea, observes M. Roger, was not dependent upon the pericarditis but upon the rheumatic vice, which, having affected two different parts of the economy, finally attacked a third.

Obs. 6th. Acute articular rheumatism; during the decline severe chorea; recovery. A year later chorea and slight endocarditis. Cure of both affections.

(B.) THIS CLASS CONTAINS OBSERVATIONS OF RHEUMATISM, ACCOMPANIED BY CHOREA DURING ITS PERIOD OF INTENSITY.

Obs. 7th. Endopericarditis, with such abundant effusion that the life of the patient was seriously compromised. The following year a long attack of subacute rheumatism, accompanied by a slight chorea, which disappeared gradually at the end of a month. Neither rheumatism nor chorea returned, and the heart disease was notably ameliorated.

This case is remarkable, as showing the intimate connection of the three members of the rheumatic trilogy, even when the endocarditis, developing itself first and alone, might have been considered quite independent of rheumatism.

Obs. 8th. Polyarticular rheumatism caused by cold, in a child of 14. Endocarditis and double pleurisy, nearly simultaneous; slight chorea the 15th day, which increases as the pleural effusion diminishes. At this moment exacerbation of rheumatic pains during several days, and as they diminish, the chorea diminishes and disappears.

In this interesting observation, M. Roger calls attention to the multiplicity of the rheumatic accidents, their succession, their so-called metastases. First, rheumatic fever, then inflammation of several joints, followed by participation of the pericardium. The cardiac phlegmasia diminishes, rheumatism resumes its ascendency, manifesting itself in a double pleurisy. This in turn yields place to the chorea, which gains ground with every inch relinquished by articular and pleural rheumatism. Finally, a month later, when the chorea begins to abate, occurs a new attack of rheumatism. The most delicate balance seemed to be maintained between the articular rheumatic phenomena, and the muscular disorders of the chorea.

(C) OBSERVATIONS OF RHEUMATISM COMPLICATED BY CHOREA FROM THE BEGINNING.

Obs. 9th. Several attacks of acute articular rheumatism, with endocarditis; the last complicated with a slight chorea, rapidly cured.

Obs. 10th. Two attacks of articular rheumatism at a year's interval, both complicated with chorea and cardiac affection, occurring simultaneously. Sometimes the chorea predominated, sometimes the articular rheumatism, until both affections ceased altogether, leaving an endo-pericarditis as a permanent heritage to the economy.

Obs. 11th. Exceedingly slight attack of rheumatism, complicated by severe chorea: pulmonary congestion, followed by endocarditis. After the amelioration of the latter affection occurs a relapse of the rheumatism, that continues to be slight. The chorea persisted in its intensity throughout the whole, accompanied by a

diminution of the intelligence, but was finally cured, while the heart disease remained permanent.

(D.) OBSERVATIONS OF COINCIDENCE AND ALTERNATION OF RHEUMATISM AND CHOREA.

Obs. 12th. Six attacks of rheumatism and five of chorea, coinciding or alternating in less than five years. Hemiplegia at the first relapse of rheumatism, and endocarditis at the second.

The first attack of rheumatism occurred at seven years old, and was uncomplicated. Four months later, a second attack, complicated with hemiplegia and intense generalized chorea. At nine years, a third—rheumatism, this time with endocarditis, and a second severe chorea. At ten years, another combination of rheumatism and chorea. Finally at twelve, a fifth attack of chorea, this time of slight intensity. After this, the unhappy patient seemed definitely rid of his rheumatism and his chorea, but the organic heart disease persisted.

The identity between the three affections is apparent in this case: the articular inflammation, the chorea, the cardiac phlegmasia combine, replace each other, confound themselves with one another, having the same origin and the same termination, being the triple expression of a unique vice—rheumatism.

The facts proving an intimate connection between rheumatism and chorea, may be summed up as follows:

Chorea occurs frequently in children affected with rheumatism; coincidence of the two affections.

Frequently rheumatism is closely followed by chorea; *relation of cause and effect.*

Rheumatism may complicate itself with a chorea, which survives the first attack, but presently is accompanied by a relapse of rheumatism; *parentage of the two diseases.*

Rheumatism and chorea may arise simultaneously under the influence of cold, march together, the rheumatism cease, the muscular ataxy being of more chronic nature, persist, and finally, as a band of union between the two, may develop an endo- or peri-carditis; identity of nature.

Clinical experience proves, not only the frequency of the relation between chorea and rheumatism, but almost the constancy of this relation; and henceforth the description of the rheumatism of childhood should include chorea as one of its most essential elements. These ideas cannot fail to modify the prognosis both of chorea and of infantile rheumatism.

This rheumatic chorea belongs almost exclusively to childhood, and is explained by the extreme excitability of the nervous system in children, easily aroused by the influence of the rheumatic vice.

Chorea is most imminent during the decline of rheumatism, and as a complication of benign forms of the articular affection, often limited to vague, ill-defined pains, frequently called "growing pains." And there is a certain opposition between the intensity of the two affections, so that severe chorea is more likely to accompany a slight attack of rheumatism, and inversely, a severe rheumatism to be complicated by slight choreic movements. P. C. M.

THE BOARD OF HEALTH, AND THE RESIGNATION OF ITS MEDICAL OFFICERS.

To the Editor of the Medical Record.

Sir—In your journal of February 15th there appear, in an editorial notice of the Metropolitan Board of Health, certain statements in regard to the causes of the resignation of several of its medical officers. It will be an act of simple justice to that Board, and perhaps of interest to your readers, to publish the transactions which preceded the resignations referred to.

On the organization of the Board of Health, in March, 1866, the following resolutions were adopted:—

(*Extract from Minutes, March* 5, 1866.)

Resolved, That, until otherwise ordered, there shall be appointed Inspectors not to exceed six in number, such Inspectors to be medical men, and required to devote their *whole time* to the performance of the duties of the office.

Resolved, That the Superintendent, Deputy-Superintendent, and Inspectors shall not be permitted to hold any other office, nor place of profit or emolument.

(*Extract from Minutes, March* 14, 1866.)

By-Law 6. The Sanitary Superintendent, the Assistant Sanitary Superintendent, and the Sanitary Inspectors shall be considered always on duty.

These rules remained in full force until recently. Many very competent practitioners, who desired to enter the service of the Board at its organization, were compelled by the stringency of these rules to withdraw their applications. On the — of December, 1868, the Board appointed a committee to investigate and report how far these rules were complied with. That committee took the testimony of all the officers above mentioned, and submitted it to the Board. This investigation disclosed the following facts:—

1st. In regard to the rule requiring that the *whole time* of these officers should be devoted to their work, it appeared that in but a single instance was it fully complied with. Some inspectors gave but three hours daily, and others four, five, and six hours, and, in exceptional cases, ten hours.

2d. In regard to the rule requiring that they should hold no other office, nor place of profit or emolument, it appeared that the greater number of medical officers held other official positions; in several instances they held, individually, three or four appointments, some of which were sources of direct profit.

The committee concluded that these rules were not only inoperative, but unwise, and recommended the following modifications:—

1st. The Superintendent and Assistant-Superintendent should be required to give their entire time to the duties of their offices, and should be in regular attendance daily, at their respective places of business, during designated official hours, unless absent on duties connected with the Board.

2d. The Inspectors should be required to give a certain specified amount of time daily to their work, and as all the other officers of the Board were required to give eight hours daily, that amount of time was recommended in the case of the Inspectors.

3d. It was finally recommended that instead of positively prohibiting the medical officers from holding any other official positions, they should first be required to obtain the permission of the Board to accept such appointments.

The objects sought to be obtained by the committee on these modifications of the former rules were twofold:—

1st. To secure a uniform amount of time, daily, from the Inspectors, and that aggregate amount of service which the Board required of all other officers.

2d. To give the medical officers the largest amount of time to attend to private practice, and the largest liberty in holding other official positions, compatible with their duties to the Board.

As a substitute for the modifications of the rules recommended by the Committee, Dr. Stone offered the following resolutions:—

Resolved, That for the further information of this Board, the Sanitary Superintendent shall, until further orders, add to his regular weekly report of the aggregate amount of duty performed by the Sanitary Inspectors of the cities of New York and Brooklyn, a tabulated statement giving the name of each Inspector, the limits of his district, the amount of duty performed by him on each successive day, with the specific hours occupied in such duty, and the character of the duty.

That said tabulated statement be made up from the reports forwarded by the Sanitary Inspectors, and from their sworn statements severally taken before the Sanitary Superintendent, and by him certified to as personally examined, and found to be accurate, to the best of his knowledge and belief.

That such portion of said tabulated statement as may refer to the Inspectors on duty in the city of Brooklyn shall be made up and certified to, in like manner and in like form, by the Assistant Sanitary Superintendent in Brooklyn, and forwarded by him on Monday of each week, to the Sanitary Superintendent, and by the Superintendent to this Board at its next meeting, and bearing his approval.

At a subsequent meeting the whole subject was fully and freely discussed, and no other sentiment was expressed, and no other desire manifested, than to so amend the rules as to make it practicable for the medical officers to fully comply with them, and still have an opportunity to attend to private practice and professional appointments. The result of these deliberations was the adoption of Dr. Stone's resolution, together with the following:—

Resolved, That the Superintendent and Assistant Superintendent shall severally devote their entire time to the service of the Board; they shall be in attendance at their respective offices of the Board in New York and Brooklyn, each day during the designated official hours of this Board (9 o'clock A.M. to 5 o'clock P.M.), unless absent on duties pertaining to their offices, and they shall hold no other office, nor any place of profit or emolument, without the express permission of the Board.

Resolved, That Sanitary Inspectors and Assistant Inspectors shall devote at least eight hours each day to the duties of their offices, and as much additional time as the Board may from time to time direct; they shall report to the Superintendent weekly, under oath, first the number of hours devoted daily to inspections; the number of hours to preparing the reports, and the number of hours spent in visiting the central office in New York or Brooklyn; they shall immediately and without delay report upon all special cases referred to them, and shall in no case allow any business or employment to prevent such inspection and report; they shall hold no other office, nor place of profit or emolument, without the express permission of the Board, and shall be at all times at the call of the Superintendent or Assistant Superintendent.

In alluding to the resignations which followed the adoption of these resolutions, you use the following language: "The grounds of acceptance of the resignations were based principally upon an implied unwillingness to meet the just demand of the Board upon their time. For this statement there is, in our opinion, not the slightest foundation. The one and only apparent reason why these gentlemen resigned, was an attempt on the part of the Board to degrade their positions, assign them to unprofessional and undignified duties, and make use of them for political purposes."

How far the facts sustain those grave and unqualified charges, we leave to your readers to determine.

JAMES CRANE, M.D.
STEPHEN SMITH, M.D.

March 25, 1869.

Obituary.

ALEX. H. STEVENS, M.D., LL.D.,

WHO died in this city, March 30th, 1869, in his 80th year, was a native New Yorker, and a son of Ebenezer Stevens, a colonel of artillery in the war of the Revolution. His mother, a sister of Colonel Ledyard, was aunt to the well-known traveller of the same name.

A graduate of Yale College, he entered the office of Dr. Edward Miller in his 18th year, attended one course of lectures in the College of Physicians and Surgeons, New York, a second in the University of Pennsylvania, and from this latter institution he received his medical degree. In 1811, captured by an English cruiser on his way to France, he was sent to Plymouth, but did not long remain there while London offered to his enthusiastic mind such powerful attractions as the lectures of Cooper and Abernethy. During the succeeding year he attended the cliniques of Boyer and Larrey. A second capture by an English vessel, during the war which broke out between England and America, again consigned him to Plymouth, but ultimately he returned home in a cartel and was appointed a surgeon in the army. Honors in recognition of his distinguished attainments soon began to accumulate. He was made a Fellow of the College of Physicians and Surgeons in 1813; became Professor of Surgery in the Queen's College Medical Department, in 1814, and fulfilled the duties of his position for two years, although his appointment was not formally annulled until 1826; was appointed a visiting surgeon to the New York Hospital in 1817; was a Trustee of the College of Physicians from 1820 to 1836, and accepted the chair of Clinical Surgery in the same institution in 1837, which he held for two sessions. Ill health now compelled his retirement from the more active duties of his profession, and we now find him occupying positions still of responsibility but not demanding so severe a strain upon his physical energies. He commenced to confine his practice to consultations and surgical operations. About this time also he was appointed a consulting surgeon in the hospital which he so devotedly served, and whose clinical resources he contributed so much to develop. This event also suggested to his pupils the delicate compliment of placing his portrait in the governor's room where it still hangs, a companion-piece to that of his great rival Dr. Valentine Mott. But Dr. Stevens was not disposed to yield his prominence as a teacher of surgery without an effort, since the catalogue of his favorite college still bears his name upon its roll of professors as an occupant of the chair of surgery from 1840 to 1844. Among his other honors may be included that of President of the College to which allusion has been so frequently made, that of Vice-President, and in 1848, the succeeding year, that of President of the American Medical Association.

Dr. Stevens as a lecturer dealt in quaint illustrations, aimed at the practical, and frowned upon all craft-trickeries. He studied to impress, by aphorisms and appeals to the common-sense of his pupils. A conservative himself, and perhaps one of the earliest pioneers of the *expectant* school, he never wearied in his efforts as a propagandist, although the paucity of his writings, as in the case of too many of the pro-

fession, will contribute nothing to his posthumous influence. We apprehend that instead of being an abiding power, as was his right, posterity will suffer his name to become a mere tradition.

Medical Items and News.

Dr. Alexander H. Stevens.—At a joint meeting of the Trustees and Faculty of the College of Physicians and Surgeons, held April 1st, 1869, the following resolutions were unanimously adopted:

Resolved, That in the death of Doctor Alexander H. Stevens, the officers of the College over which he formerly presided for many years, and of which, for a still longer period, he was one of the most eminent Professors, feel called upon to express their deep regret at the loss of one with whom they had been so long associated.

Resolved, That the Trustees and Faculty, while they mourn his loss, have much satisfaction in remembering, as they look back upon his long and useful career, his high moral worth, his great professional learning and skill, and the general esteem in which he was held by the entire profession, of which he was one of the brightest ornaments.

Resolved, That in expressing our sympathy with the family of the deceased, we cannot but feel that they have every consolation in the departure of one so dear to them, and that living, as he has, to the extreme verge of human life, and passing away at last, quietly and peacefully, the event has been tempered by so much to console and comfort his relatives and friends.

Resolved, That the Trustees and Faculty of this College will attend the funeral of the deceased in a body.

Resolved, That the foregoing resolutions, duly authenticated by the signatures of the President and Registrar, be transmitted to the family of Doctor Stevens and be published in the daily newspapers and in the Medical journals.

Edw'd Delafield, M.D., *President.*
Ellsworth Eliot, M.D., *Registrar.*

At a meeting of the Island Hospital Medical Board, held on the 1st ult, the president, Dr. James R. Wood, announced the death of Alexander H. Stevens, M.D., LL.D. A committee was appointed, consisting of Drs. Jas. R. Wood, Austin Flint, and Frank H. Hamilton, to draft resolutions expressive of respect to the memory of the late Dr. Alexander H. Stevens. Dr. Wood reported the following resolutions, which were subsequently adopted:

Resolved, That it becomes the Medical Board of the Island Hospital to take official notice of the decease of Alexander H. Stevens, M.D., not only in view of his distinguished relation to the profession at large, but especially from his connection with the early history of the charities of Blackwell's Island.

Resolved, That we thus record our acknowledgment of his early and eminent services in the separation of disease from crime and pauperism; in the correction of abuses which their indiscriminate union had previously entailed; in the systematic direction of professional labor to the achievement of its legitimate results, and in the inauguration of that hospital system of which the erection of this great hospital is the ultimate result.

Resolved, That in the completeness and symmetry of his character, in which soundness of judgment was perfected by general and classical culture and great professional learning and sagacity, in which superior abilities and entire self-reliance were shaded by delicacy of feeling, modesty, and refinement of manner, we recognize the justness of the distinction to which he attained, and through which he at once elevated the standard of his profession, and in himself gained for it the respect of the community in which he lived.

Resolved, That in his death we are called upon to mourn the loss of the last of the great surgeons of this city, of the preceding generation. In death, as in life, his name is associated with Mott and Francis, who passing from their labors here leave to us their memory and example.

Resolved, That these resolutions be entered upon the records of the Board, and that a copy properly authenticated be sent to the family of the deceased, with the assurance of our sympathy in their bereavement, and that these proceedings be published in the medical journals of this city.

James R. Wood, M.D., *President.*
Robt. Watts, M.D., *Secretary.*

Recognition of the College of Physicians and Surgeons by the Royal College of Surgeons of England.—Certificates of attendance on the several courses of Lectures delivered in the College of Physicians and Surgeons, New York, will hereafter be recognized by the Royal College of Surgeons of England, and the Diploma of Doctor in Medicine of the said College will also be recognized.

Prof. Robley Dunglison, M.D., the distinguished medical author, died, April 1st, in his native city, Philadelphia, at an advanced age.

Dr. Lewis A. Sayre.—We are happy to announce that our fellow-townsman has been appointed a fellow of the Medical Society of Norway, at Christiania.

Commencement of the Toland Medical College.—At the Commencement of the Toland Medical College, of San Francisco, Cal., which occurred November 5th, 1868, six medical students received diplomas.

New Editors of the St. Louis Medical Reporter.—Drs. W. M. McPheeters and G. M. B. Maughs succeed Dr. O. F. Potter in the editorial management of the St. Louis *Medical Reporter*. In future this journal will be published monthly, instead of twice a month, as in the past.

The First Demonstrations in Anatomy in this Country.—It is probable that the first anatomical demonstrations in the United States were given in Philadelphia, about the year 1751, by Dr. Cadwalader, of that city, who had been a pupil of the celebrated Cheselden.

Death of a Celebrated Parisian Investigator.—*Grisolle* died on the 10th of February, 1869, in the 58th year of his age. A stroke of apoplexy had confined him to his room for three years previously. M. Behier, M. Chauffard and M. Millard delivered addresses at the tomb.

Suicides in Saxony.—The number of suicides recorded in the kingdom of Saxony during 1868, figured up to 210—that is, 158 men and 52 women—and thirty-nine of them occurred in the city of Dresden. The entire population is only 610,000 souls; therefore the cases of *felo de se* average about one in 3,000.

Alcoholic Consumption in Great Britain.—In 1868, 21,008,634 gallons of home-made spirits paid duty as retained for consumption as beverage in the United Kingdom,—11,327,223 in England; 4,907,701 in Scot-

land; 4,773,710 in Ireland. These figures show in England a slight increase over 1867, in Scotland a decrease, in Ireland a larger decrease; on the whole kingdom a decrease of 119,000 gallons. 3,950,636 proof gallons of foreign rum and 3,320,573 of foreign brandy were entered for home consumption in the United Kingdom in 1868—the latter a larger and the former a smaller quantity than in 1867, when the quantities were 4,316,058 gallons of rum and 3,186,574 of brandy. In 1868, 15,151,741 gallons of foreign wine were entered for home consumption in the United Kingdom, 7,192,187 of red and 7,959,561 of white wine. In the same year 48,119,039 bushels of malt were charged with duty in the United Kingdom.

THE FLORENTINE MEDICAL CONGRESS.—A Medical Congress is to be held at Florence, composed of medical men from all nations, the opening of which is announced for September 20, and the 5th of October next as the day of closing.

A SOLVENT FOR INDIGO.—Chloroform is said to be a perfect solvent for indigo blue, and is now used very extensively in combination with that dye.

PERSONAL.—Dr. S. Fleet Speir has been appointed surgeon to the Brooklyn City Hospital, to fill the vacancy occasioned by death of Prof. Dewitt C. Enos. Dr. Speir is also filling the position of attending surgeon at the Brooklyn Dispensary and Eye and Ear Infirmary in Tillary street.

LONGEVITY AND THE CAUSES OF DEATH.—A correspondent of the *Lancet*, writing on Longevity, says: Dr. Allbutt is of opinion that, "setting apart accidents from without, all men die of old age." It is quite possible that such a large interpretation may be given to the phrase "accidents from without," that Dr. Allbutt and myself may prove to be of almost the same way of thinking. The bearing of Dr. Allbutt's sentence, like that of the oracular Bunsby, lies in its application. If, as the result of "accidents from without," Dr. Allbutt includes, as I do, the majority of the diseases from which we suffer, he and I are much of the same opinion. If he considers "accidents from without" as exceptional causes of death, and holds that the majority of human beings reach the term for which they were constructed to last, and perish eventually from the simple effect of time upon their tissues, he holds an opinion from which I dissent.

We may perhaps allow, using the language of paradox, that all persons who die of disease which is purely hereditary or innate, die of age, though their years may be few. They have become the victims of change which only required time for its development. The majority of mankind, however, inherit, not disease, but a liability to disease, and die at last because they are vulnerable, and circumstances adverse. They die from accident as much as if their bones had been broken, or their necks dislocated. This conclusion can scarcely fail to force itself upon the mind of any one who has had much experience in post-mortem examination. Most human beings die before they are in any general sense worn out. Causes, often distinctly traceable from without, have set up in certain organs processes which break some link in the chain of vital action. This may, and often does, happen, while the general structure of the body is not appreciably the worse for wear. When a child dies of scarlatina, or a robust laborer of typhus, is it possible by any abuse of language to describe them as dying of age? All epidemic and all contagious diseases, including syphilis with its thousand consequences, are not necessary, but accidental, causes of death. How large a proportion of humanity do these kill? Further, how many persons fall victims to the consequences, perhaps remote, but none the less certain, of unhealthy pursuits and injurious habits? The Sheffield workman who dies at thirty of grinder's rot, the painter who gets granular degeneration of the kidney from the absorption of lead, the abuser of alcohol, who has before him a choice of evils—all these are the victims of accident, not of age. The same may be said of all in whom fatal changes are produced by the effects of weather and climate. How many persons dead of bronchitis, pneumonia, or even of phthisis, would still be alive were it not that at a certain time they were exposed to influences which, to use a common phrase, "gave them cold?" How many have died of the remote sequelæ of an attack of rheumatic fever, which under different external circumstances would never have occurred? In all these cases death has resulted from external causes as much as if the victims had been crushed in the recent earthquake; and I might protract the list almost indefinitely. The further we search into the causes of diseases, the more examples we find of morbid changes which are traceable to influences acting from without. Having excluded them all, we may say with Dr. Allbutt, "the rest die of age."

A PERILOUS TRADE.—Amongst the occupations which almost necessarily entail damage to health, a notably dangerous one is the enamelling of the backs of playing cards. When we are intent upon our "quiet rubber," and express a preference, perhaps, for the green pack as representing the "winning cards," we are apt to forget that their brilliant color is due to a combination of arsenic with copper. The unfortunate artisan, however, who colors them has bitter cause to remember the fact in the injury received, especially by his eyes and nostrils. He knows, too—his palsied hands will often teach him—that the smooth glaze which makes the cards so easy to shuffle depends upon a coating of white lead. Toy and doll makers run similar risks. —*Lancet.*

INCREASE OF INSANITY AMONG THE POOR.—That insanity is largely on the increase among our poorer classes has long been admitted by those who have specially directed their attention to the subject, and there is much in the recently published report of the Commissioners in Lunacy, despite its lamentably defective statistics and decided lack of information on vital points, in support of the painful and disheartening allegation. Of the 31,917 lunatics officially mentioned as remaining on the 1st of January, 1867, in the various county and borough asylums, registered hospitals, metropolitan and provincial licensed houses, and naval, military, and state criminal asylums in England and Wales, no less than 25,998 belonged to the pauper class. On the 1st of January, 1868, the number of insane patients confined in these institutions had risen to 33,213; this marked increase being wholly among the pauper lunatics, the number of which, at that date, was 27,361, the better class of patients exhibiting a decrease of 67 during the same period.

These figures do not include the patients confined in the lunatic wards of our workhouses; this species of information being apparently considered of remote importance by the Commissioners, who merely inform us—in a separate table—that in the 299 workhouses in England and Wales visited under their direction in 1867, the number of insane, idiotic, and imbecile inmates was 7,987. As to the number of persons of unsound mind residing as single patients, either in lodgings or with their relatives, the Commissioners do not condescend to vouchsafe any information whatever, although in their

previous report they obligingly mentioned that the number of such persons then actually under their notice was 6,861. It is perfectly clear that if we desire to stay the further progress of insanity in this country, we must as a mere preliminary step, acquire a considerably larger, amount of definitive information respecting the actual extent to which cerebral diseases prevail among the community in general, especially among the poor; also, respecting the real or probable causes of the same.

THE ENDOTOSCOPE.—This instrument is contrived for the study of the movements of the membrana tympani. These movements, according as they more or less deviate from the physiological standard, will indicate any irregularity in the middle, and even internal ear. The ordinary and healthy oscillations of the membrane are, as is well known, excited by deglutition, expiration, screaming, blows, efforts, and the contraction of some of the muscles connected with the ossicula auditûs. Accidental oscillations are, on the other hand, produced by insufflation of air through the Eustachian tube, and the catheterism of the same. Now, the instrument in question is simply of a V-shape, one stem of which enters the meatus externus, whilst the other tapers toward its extremity. At the bend is some colored fluid, which rises and falls according to the oscillations of the membrana tympani. At least, this instrument has the merit of simplicity.

SECONDARY EFFECTS OF THE VIPER'S VENOM.—Messrs. Chéron and Goujon communicated to the Academy of Sciences of Paris, at a late meeting, a very interesting experiment. The ear of a healthy rabbit was subjected to the bite of a viper, and the former died thirty hours afterward. From the œdematous soft parts around the bitten spot as much as from two ounces to two ounces and a half of serum was easily obtained. It emitted much fœtor, was colored red by blood-discs, and contained a few white globules. It did not coagulate by nitric acid or heat. About half a drachm of this fluid was injected under the skin of another healthy rabbit. One hour and a half afterward the animal was found to present a cold surface; it walked lame, and half an hour afterward it died, during severe convulsions. The result of this experiment would show some analogy between venom and virus. It is a pity the gentlemen above named did not inject under the skin of a healthy animal the blood of the first rabbit, and especially that of the second; the result would have shown in what ratio the mass of the blood becomes contaminated. Nor should future experimentalists omit, under the same circumstances, to go on inoculating to the fourth or fifth generation, in order to find out whether the fluids retain the same contaminating power, or whether this power diminishes by successive transmissions.

EXTRAORDINRAY DELIVERY.—Professor Stolz, of Strasburg, has communicated this case to the Surgical Society of Paris. So rare are these cases that the Professor has seen only one example during a practice of forty years. The patient, aged twenty-seven, had severe pains, and when the head was on the point of passing the vulva, it retracted. A pupil midwife was supporting the perinæum, when the head suddenly passed through the latter, and so rapidly that the whole child was born through the abnormal aperture. The child measured about seventeen inches, and weighed almost seven pounds. The rent was two and a half inches long. The fourchette was entire, and the internal sphincter also. The constrictor vaginæ was torn posteriorly, and likewise the inferior third of the vagina, with the corresponding recto-vaginal parietes. Some gangrene occurred, but on the twelfth day the wound looked well, and was contracting. On the thirtieth day the wound was getting smaller; the woman left the hospital, and was not heard of until one year after the accident (the summer of 1865), when she came to complain of procidentia uteri. The aperture was still visible, and somewhat occluded by the neck of the uterus. At that period the patient again disappeared, and the account of the case closes thus unsatisfactorily. How the woman was allowed to leave the hospital with the rent gaping, when it might have been so easily sewn up, can hardly be understood, unless she positively refused an operation. This supposition seems near the truth, as it is not said how, when she came a year afterwards, the hole was not proposed to be closed by sutures, and the uterus replaced.

THE USE OF IODINE.—Add a few drops of liquid carbolic acid to the iodine tincture, and the latter will not stain. Dr. Bogs, of the Indian Service, states that the carbolic acid, besides the above-mentioned property, renders the efficacy of tincture of iodine more certain. Whenever injections of the latter are indicated, he advises the following formula:—Alcoholic tincture of iodine, one ounce (this proportion is mentioned by the *France Médicale*, but there is evidently a mistake—instead of "30 grammes" it should probably be "3 grammes,"—viz., 45 drops); pure liquid carbolic acid, six drops; glycerine, one ounce; distilled water, five ounces. This is said to be far superior to tar-water in blennorrhœa and leucorrhœa.—*Lancet.*

A PLEA FOR THE BEARD.—Nature has her own ranks, and in the matter of beards she divides her upper from her lower classes. A man with a fine beard, whatever he may be, never looks a snob; while the beards of some men are so thin and poor that they take away rather than add dignity to the face. Let the last continue the use of the razor by all means; but we commend the scissors to the first. Any one accustomed to travel, and particularly in the East, must have remarked the air of nobility and gravity which a fine beard gives. But we need not go so far as the East. The contrast is striking between a regiment mainly composed of bearded veterans with bronzed countenances, which mark its recent return from foreign service, and the neat clean-shaven physiognomies of the men of another regiment. A manly dignity characterizes the former, which the latter do not possess. If beards, as a rule, add so much to the appearance of men, giving them what may be termed a fine presence, we may add that a beard serves many useful purposes as regards health. It protects the throat, mouth, and delicate vocal organs from cold, and guards these and the lungs against congestion and inflammation. The rules of society are very arbitrary, and we follow them very sheepishly. When it is considered, however, that we protect our bodies by artificial coverings, it appears ridiculous that we should rob ourselves of a natural protection at the cost of some pain and discomfort formally inflicted every morning. It has been sometimes urged that beards do not consort well with our method of dress, the white shirt and collar and the coat; but there is no reason why we should follow the fashion of the East, or make ourselves appear like Hebrew patriarchs. The beard may be trimmed by the aid of scissors, and preserved of moderate length.

ERRATA.—In Reviews and Notices of Books, page 87, first column, seventh line from bottom, for "soon" read *now*. Second column, eleventh line from top, for "has probably come," read *has probably not yet come*. Third paragraph from top, same page, third line from top, for "Dr. Morrin's," read *Dr. Mooren*. Fourth line, for "Desmoines," read *Desmarres*. Fourth paragraph, seventh line from top, for "pen method," read *new method*.

Original Communications.

THE EFFECTS OF CLIMATE UPON THE LUNGS,

WITH SPECIAL REFERENCE TO MINNESOTA.

By BREWER MATTOCKS, M.D.,

PRESIDENT BOARD OF HEALTH, ST. PAUL, MINN.

Dr. Bowditch in his writings upon consumption, both for the profession and for the people, lays much stress upon dampness as the great exciting cause of consumption.

While we do not claim that tubercle is deposited by a peculiar fungus, generated by dampness with cold, yet we do claim that where there is a damp cold climate, subject to sudden changes by reason of lake or marine winds, tubercle follows as surely as mould attacks clothing or damp wood.

While pathology has not yet taught us conclusively the source or origin of this tuberculous matter, yet experience has taught us the condition of the system most favorable for its attack. Often a slightly-congested lung by reason of cold, followed by imperfect recovery, may be the exciting cause, preceded in the great majority of instances by a lessened vitality, in consequence, perhaps, of a recent attack of illness, grief, or the depressing effect of poverty—all these reasons may predispose to the disease, accompany or hasten it, but a "cold" lights the flame.

As an illustration of our premises, I give below the census returns of 1860 of the deaths by consumption. The census in many of its details is incorrect, but for the purposes of comparison I find it mainly correct. As the death-rate is very different in many States, for more correctness of comparison I have estimated the number of deaths from the population of each State. For instance, in Massachusetts for 1860 one person died with consumption in every 250 inhabitants;

Maine	1 in	280	Tennessee	1 in	770
New Hampshire	"	280	Louisiana	"	840
Rhode Island	"	300	Wisconsin	"	850
Connecticut	"	360	Illinois	"	880
Vermont	"	400	Missouri	"	900
New York	"	470	Iowa	"	902
New Jersey	"	490	Kansas	"	910
Delaware	"	550	Minnesota	"	1,139
Maryland	"	570	North Carolina	"	1,300
Pennsylvania	"	580	Arkansas	"	1,322
Michigan	"	630	Mississippi	"	1,420
Kentucky	"	640	Texas	"	1,430
Ohio	"	670	Florida	"	1,440
California	"	720	Alabama	"	1,618
Virginia	"	750	South Carolina	"	1,720
Indiana	"	760	Georgia	"	2,150

In the above table we have the whole climatic history and range of consumption.

In and around the North American continent we have all the climates of the world—arctic, temperate, and torrid.

We have the cold winds from the North Atlantic, and the warm breezes from the Pacific, and all the modifying effects of mountains, plains, and table-lands. Even within the boundaries of our own country we have a little world of our own.

We see that Massachusetts leads the way in frequency of the disease. I think it is on account of its denser population that it seems to stand out of its place. We find as we descend the coast from Maine consumption gradually lessening until we reach Pennsylvania. Next we find Michigan, situated between two lakes; then Ohio and Kentucky materially affected by the lakes on the north and the Alleghanies on the east. From Ohio we strike across the continent, and find California on the same parallel suffering the next. Then the western and upper tier of Southern States. *Interlarded* among these we find Louisiana. We account for the frequency of the disease in this State by two causes—first, that New Orleans contains a large population of a mixed race, densely crowded; second, it is below the level of the river. Moreover, it is subjected to violent northers during certain seasons of the year.

Now, in glancing over the above table the reader can account to himself for the prevalence of tuberculous disease in all of the (so-called) consumptive States by applying to each State the rule of cold and moisture. North of 35° cold winds and rains prevail with more or less frequency during three seasons of the year. Besides, the different mountain ranges prevent the perfect evaporation of moisture. Passing from the coast to the interior, phthisis prevails, but not to the extent that it does on the seaboard. The same influences prevail in all of the Northern and Middle States, but distance from the coast materially modifies them. During the war I barely escaped a *decline* from exposure in Kentucky on a hard clayey soil, which prevails in some sections of the State, while many of my comrades found their graves there, and others returned home with diseased lungs.

We have hurriedly considered the consumptive States; we will now look for a moment at the Southern States—called by Mr. Disturnell the subtropical zone—North and South Carolinas, Georgia, Florida, Alabama, Louisiana, Mississippi, Texas and Lower California. Moisture exists no less in those States than it does further north, but it is much warmer, causing more disease, but of a very different type—a more fatal type. Fevers to a great extent prevail, dropsies dependent upon the various affections of the liver, different diseases of the respiratory organs, with the exception of consumption—this disease is comparatively rare.

Cold and moisture excepted, how can we account for the large death-rate by consumption in the New England States? It might occur to some that poor living and hard work in some of the large manufacturing towns on the seaboard, with much crowding and the close air of the factories, would materially affect the death-rate; but in Maine and Vermont there are few large manufacturing towns and but little poverty, yet one-fourth of the deaths are from consumption, and where do we find a more robust, hard-working people, male and female, than in these two States? The laws of hygiene are rarely transgressed. Everything looks favorable to health and long life except the climate. Is it an inherited predisposition that causes tubercle in the Northwest? If such were the case, why do the Western States not suffer in like proportion, as we all descended from New England parentage? I cite an instance in my own family to show that locality does more to produce the disease than predisposition.

Two sisters many years since, after marriage, immigrated from Connecticut, one to Alabama and the other to Cleveland, Ohio, on Lake Erie. They both reared families to adult life. The one subjected to the trying winds of Lake Erie lost four children with consumption, while the one in the South reared her family with but two deaths, and these from other causes.

Does tight lacing and pastry kill off our New England cousins? One would naturally suppose it to be the case after reading many of our modern works on consumption. Or do cigars and late suppers destroy

the thousands of young men who die annually in our eastern cities? These and all other dissipations kill too many of our young people, it is true. But I think it is the damp chilly air of night rather than the mere fact of smoking or tight lacing that causes the "hectic flush."

We have hurriedly considered the *climatic cause* of phthisis; the *climatic treatment* now claims attention. We see that one side of our vast continent is afflicted with this terrible disease, while another part is but little subjected to its ravages. Some particular localities suffer, perhaps, more than others by reason of greater exposure or more moisture, yet as a general thing the haunts of consumption are not limited to certain districts.

And I think we err when we *confine* our treatment of it to well-favored table-lands of small area, or certain protected shores or nooks, or to highly-favored villas around medicinal springs.

The disease is one bounded only by degrees of *latitude* or *longitude*, or, if you please, by *climates* or *isothermal lines*, and these lines are formed by the configurations of continents.

I think a safe rule to adopt in the climatic treatment of consumption would be *similia similibus non curantur*. Experience has taught us all that treatment is of little avail unless the cause of the disease be at once removed. If that cause be climatic, remove the patient to a more favorable locality. If the disease be generated in a region of cold and moisture, send him where there is less moisture and a warmer temperature, or to a colder temperature, providing it be dry. I have sometimes thought that the difference between a high and a low temperature, providing the rain-fall altitude was the same, was slight, so far as the effect upon diseased lungs was concerned. For instance, upon the table-lands of Mexico there is little or no consumption, but the temperature is high and there is but little moisture. On the other hand, in Greenland, Iceland, and Russia the disease is hardly known, and yet the temperature is low. This fact I think should guide us in selecting a climate for the consumptive.

The "*sine qua non*" should be *first a dry climate*, and leave it to the judgment of the patient which he will choose, or rather which agrees with him the best—hot or cold.

Some patients cannot stand the cold at all; it seems to *wither* them all up; these are as a general thing of a phlegmatic temperament, anæmic, and bloodless. They have no life, no vitality, and they seem to desire none; they want perpetual sunshine with little stirring about them. Such of course should be sent South, if moved at all; generally there is but little to hope from such patients.

Again, there is a class that cannot live in the South; who dread and shrink from it; say they cannot breathe there. They are generally of a nervous, sanguine temperament, who say "they will or they won't." I have just had a patient of that class from Alabama, who came here too late, and died. During his illness it was suggested that he return home; his answer was, "If I return home I will die at once; I cannot breathe there."

Minnesota is naturally a tonic climate, bracing and stimulating (no more, however, than pure, cold spring water is stimulating and bracing after one has been accustomed to drink impure water).

By referring to the map it will be seen that we are centrally located midway between the north and south pole, midway between the Atlantic and Pacific, midway between Hudson Bay and the Gulf of Mexico, and midway between the coast ranges of the Atlantic and Pacific.

We are also on the height of land of the continent. From Minnesota descend three water-sheds. From the north the Red river system, from the south the Mississippi and Missouri rivers, and from the east the St. Lawrence system. Our soil is porous, and moisture is quickly absorbed, and the lay of the land is rolling, presenting a natural drainage. So far are we from the Atlantic that the winds scarcely reach us, while the warm winds of the Pacific, robbed of their moisture by the Rocky Mountains, give us an early spring with but little moisture; we have but 25·6 inches during the year in the form of rain or snow.

Nature has given us healthful influences on all sides of us. We claim no one spot in our State well-favored above all others, but westward from the Mississippi river for hundreds of miles the invalid will find health, and not only immunity from consumption, but from all diseases. By referring to the list of deaths in Minnesota one would be at a loss to say what was our prevailing sickness. Our death rate in 1860 was one death in 155 living, and that included the deaths of all non-resident invalids.

In my official report to the Common Council of our city for the year ending 1868, I reported but one death by disease in 82 inhabitants, in a city of 20,000 inhabitants, many of whom were foreigners. Of this number 167 were under five years of age; between 5 and 15 there were but 15 deaths; over 15 there were but 84. This of course does not include non-resident invalids.

In Pau, that world-wide resort for invalids, there is one death in 45—on a par with Chicago; Nice, one in 31; while in Rome, another resort for invalids, one in 25 die annually. It must be remembered that thousands of our resident population originally came here in search of health. But *six* of American descent died of phthisis in St. Paul during the last year.

It will be asked who will be benefited by a trip to Minnesota or a residence in the State? We answer in general terms, all who would be benefited by a *tonic course of treatment*.

The eastern profession seem to think that bronchial patients should not come to Minnesota; that those who are predisposed to bronchitis should stay away. Theoretically (*i. e.*, according to the old theory) there may be a reason in it, but practically it is without foundation. In the census of 1860 it is well known that the United States was divided into eight districts. The district embracing Minnesota, Iowa and Wisconsin suffered the least of all. There were but 18 deaths to the thousand by that disease; while in the south, in the Gulf States, there died from 62 to 65 to the thousand—a fatality larger than in any other district.

I cite two instances of our climate being of benefit to such patients. A Boston lady, Mrs. A. B., spent the winter in Florida two years since for chronic bronchitis. She came home in the spring no better, but a little worse; the country did not seem to agree with her. Her physician (for which he was called crazy) sent her last fall to St. Paul. She now weighs two pounds more than when she arrived. Miss C. D. left Alabama in midwinter with a cough; she lost it two weeks after her arrival here. An instance came to my notice yesterday where the climate *did not* agree with the patient, and his friends are disgusted with Minnesota air. A lad of 14 came to the city from the East a few weeks since with some tubercles in the apex of the left lung. He bore the journey nicely, and several days after his arrival his mother thought she would sit him out on the porch for some "Minnesota air." He was well wrapped up and set out one cold winter morning in a chair. The consequence was the air proved *too stimulating*, and he nearly died with an acute bronchitis.

One more instance of the same kind: A gentleman of means from Boston came last fall to try our climate with tuberculous lungs. By the direction of his physician "he did not shut himself up in the house," but walked every day five miles out of town and back. The poor fellow finds the climate does not agree with him, and he lost flesh rapidly. Others come here for their health, and drag their weary frames up to the fifth story of a hotel. At such an altitude the air seems *too dry* for them. And I could fill twenty pages with just such instances, and in another twenty pages I could tell of scores of patients who came from all parts of the United States to Minnesota for their health; who felt that the stake for which they played was life; who were prudent and careful in all respects, and returned home comparatively well.

Since writing the above a man came to my office with hardly strength to stand. He was from the East, and his clothing consisted only of one *flannel shirt, vest*, and *blouse*. The weather being fine he thought it not worth while to put on his overcoat, and yet he could not talk for coughing.

If tuberculous patients are sent to Minnesota, at what stage of the disease should they be sent? As a general rule, when they can travel with convenience and without much fatigue. Sometimes we meet a patient who cannot travel with safety during the first stage, and again others will improve by travelling at a much later period. Now and then we see and hear of patients brought on a cot who have improved and recovered; so we see occasionally a shattered limb healed, when, according to all correct rules of surgery, it should have been removed; yet are we justified in incurring such risks? The sooner a patient is sent the better, even before the cough, if consumption is expected.

We miss the golden opportunity if we wait beyond the period which inconsiderate parents call *laziness*, for the cure of which perhaps the well-meaning but ignorant physician prescribes exercise; a period often overlooked at the time but sadly remembered afterward; a stage called the "pretubercular stage." There are few occasions in a physician's life which require more judgment and skill, more patient study of a case, and involve one in more responsibility than in answering the question, "Doctor, do you think a change of climate would do me good, and where shall I go?"

Could the doctor in some instances follow his patient, as in a dying condition he was *advised* away from home-comforts, away over the weary miles of distance, among strangers, at the mercy of porters and hackmen, to the promised "El Dorado" of health, there to be left to die in some hotel or boarding-house (or, as I saw yesterday, sent to the poor-house), I think if the doctors who sent these patients away with a hurried examination could see them as *we* see them, they would be more chary of their *opinions*.

We hold, in conclusion, that in the New England States the reason for *so large* a death-rate by consumption is cold and moisture brought about by sudden changes. The same rule holds true in most, if not all, of the other States, so far as each State is exposed to such influences, that the general treatment for the disease is the removal or modifying of the cause so far as we are able; and as in many instances the cause is climatic, we think the treatment should be such. As we prescribe for each case remedies suitable for *individual* cases, so should we prescribe a climate, ever bearing in mind that the same remedy given for the same disease oftentimes affects two persons entirely differently by reason of peculiar idiosyncrasies. This holds true as regards climate, perhaps in a more marked degree than in medicine, hence the necessity of a patient and careful examination into *all the circumstances* connected with each case, and by all means; let it not be confined to the chest, but let age, sex, temperament, tastes, individual preferences, means and general condition of health exert their influence on the mind of the physician before venturing an opinion as regards a change of climate.

UNUSUAL DISLOCATION OF THE PATELLA ON ITS LONGITUDINAL AXIS.

By S. F. MORRIS, M.D.,

LATE HOUSE-SURGEON TO NEW YORK HOSPITAL.

Mr. B., aged 27, of slender build, while playing at ball, in endeavoring to strike the ball had to jump up and turn partially round, when, on resuming his former position, he fell, his leg refusing to bend. He appreciated the nature of his injury, and with the aid of the men in the store, endeavored to "push it back." Failing in this surgical aid was sought, but despite three attempts at reduction the patella remained displaced. He was then taken to his home.

I saw him about two hours after the accident. He complained of severe pain when any manipulation was made. The leg was perfectly straight. The patella was firmly wedged (its outer edge) in the intercondyloid fossa; its anterior surface looking outwards and slightly downwards, its posterior face looking inwards and upwards. The prominence of the edge of the patella, thus twisted on its longitudinal axis, left no doubt as to the diagnosis.

No attempt was made at reduction by me until the patient was etherized, when, assisted by Dr. C. M. Bell, of this city, it was easily performed in the following manner: The leg was raised from the bed, the thigh flexed on the pelvis. Dr. Bell then placed his thumb, as a fulcrum, beneath the under (posterior) surface of the patella, and pressed on the upper (anterior) surface; at the same time I slightly flexed, then suddenly extended and rotated the leg inwards. The patella immediately resumed its normal position.

The subsequent inflammation was considerable, but was successfully treated in the usual way. At the expiration of a little over two weeks the patient regained good use of his leg.

From the rarity of the above form of dislocation, I have reported the case. Most authorities have not given it a place in the dislocations of the patella. This is so particularly in the older books. Mr. Cooper, in his excellent work on "Fractures and Dislocations," describes two cases of the kind, but recognizes only three dislocations of the patella, "outwards, inwards, and upwards." Dr. Hamilton recognizes it, and of its frequency and cause says: "These accidents, of which not more than fifteen examples have been recorded, seem to be the result of the same causes which produce lateral luxations." In this case the patient was of slight but muscular build. His legs were straight, and presented nothing like "knock-knee."

The ease of the reduction I attribute mainly to the relaxation due to the ether. In several cases recorded before the use of ether, great difficulty had been experienced in effecting a reduction. In some cases the ligamentum patellæ has been divided, but this has done little or no good. It is very liable to aggravate the difficulty by inducing fatal inflammation and suppuration in the joint, as was the case of the guardsman reported in Rust's Magazine.

Original Lectures.

PEPSIN:

ITS PHYSIOLOGICAL AND THERAPEUTICAL ACTIONS.

REMARKS MADE BEFORE THE NEW YORK MEDICAL JOURNAL ASSOCIATION.

By J. S. HAWLEY, A.M., M.D,

GREENPOINT, N. Y.]

PART II.

Corvisart early called attention to the fact that pepsin exerted a favorable influence over the vomiting which so frequently occurs during pregnancy, and which so often leads to disastrous effects.

Case I.—A very remarkable case was related in 1856, by M. Teisier, Professor of Clinical Medicine at Lyons, showing the immediately beneficial effect of a dose of pepsin in a case of vomiting during pregnancy. In this case the symptoms resisted all the ordinary methods which were employed, and the patient was unable to retain in her stomach any substance whatever. Under these circumstances the patient was brought to M. Teisier, who found her in the following condition: The vomiting had continued for two months, and she was at the end of the fourth month of pregnancy; she presented all the appearances of a skeleton, having the aspect and the cough of a phthisical subject; the pulse was 140, and M. T. thought at first that the case was one of pulmonary tubercle. Finding that all treatment had hitherto been inefficacious, and that the lady was actually dying of inanition, he was seriously meditating the propriety of producing abortion as a means of saving her life; but at last he determined to employ pepsin. He accordingly prescribed one gramme, to be divided into two doses, and taken every day in a spoonful of broth. At the first dose the broth was retained, and from that moment the vomiting never returned. On the third day the lady ate some chicken, and then some beefsteak. She was continued in the same manner for three weeks, and at the end of that time the cure was complete, the emaciation was replaced by embonpoint, the fever and the cough ceased with the vomiting, and at the end of the ninth month the lady was safely delivered.

Dr. Gros relates six other cases in which pepsin was employed with the same success, and thinks himself warranted in concluding that pepsin doubtless produces good effects in the vomiting which attends pregnancy.

Case II.—Dr. J—— de Saintes writes March 3d, 1859, that his own wife was reduced to the last degree of weakness by the sympathetic vomiting of pregnancy. May 12th, he writes: "the pepsin which you sent produced the happiest results. The first dose entirely removed the vomiting."

Case III.—Dr. P——, of Paris, says: Thanks to pepsin, my pregnant patient, advanced one month and a half, and who found nothing to relieve her extreme and continued pains of gastralgia, was immediately cured. You remember I came to see you December 7th, P. M. An hour after that my patient was greatly relieved, and on the following morning, even cured.

Geo. Selwin Morris, Esq., Guisbro, says: I have used oxalate of cerium in six cases lately, where sickness and retching were most urgent in pregnancy. I cannot say that I am at all satisfied with its results. It is true, three of the cases were relieved by it; but in order effectually to stay the urgent vomiting, I *was obliged to have recourse to my favorite drug* (*pepsin*) in ten-grain doses.

In my own practice recently, a case occurred favorably illustrating this part of my subject.

Case IV.—Mrs. C——, in the early stage of her first pregnancy, found herself entirely unable to retain food, even the blandest. I prescribed Am. pepsin, ten grains three times a day. Visited her on the following day, and learned that the vomiting had ceased from the time of taking the first powder. So far as I know, the vomiting never returned.

The next use of pepsin to which I will call your attention, is in diarrhœa of infants. I may be excused for enforcing this part of my subject by a few extracts from a short paper written by me on this subject during the summer of 1868.

Premising that the great predisposing cause of infantile diarrhœa, is the state of evolution which the digestive system and its dependencies are undergoing during the period of dentition, the question of therapeutics becomes one of comparative simplicity, and the evident duty of the physician is to allay the irritation of the organs which is exhibited in vomiting and purging; first, by the removal of all extraneous sources of disturbance, such as food improper in quantity and quality; by protecting the skin from too sudden and frequent changes of temperature. Secondly, by sedatives to subdue the excitement which the foregoing causes may have induced, and which, in the enfeebled condition produced by the transition state, are self-propagating; and lastly, to impart to the struggling and overwhelmed digestive apparatus that assistance which will enable it to convert food from the character of a foreign, and therefore irritant material, into nutriment which will reinvigorate the natural forces, and enable them to accomplish successfully the great and necessary evolution through which they are passing.

As sedatives to the over-excited mucous membranes and glandular system of the stomach and bowels, the preparations of opium and the salts of bismuth stand pre-eminent. When irritation without pain exists, bismuth most promptly and satisfactorily allays it, but when accompanied with pain, the addition of a minute portion of opium becomes a necessary complement to its effectiveness.

We have now briefly noticed, in outline, the first two conditions of treatment, viz.: the removal of external causes of irritation and allaying the morbid excitement which has sprung from their agency; and it may be asked, if the natural functions will not now resume their offices and the health of the patient be restored? Doubtless such would be the case did not the system labor under the combined effects of the transition state of dentition, and the impairment of strength due to the morbid causes above enumerated.

The *ingesta* themselves become, for want of digestive and assimilative power, irritants to the sensitive and debilitated organs. Instead of affording nutriment to fortify the system against the dangers of the crisis through which it is passing, the food going through the intestinal canal in an undigested form becomes itself an irritant, and adds another morbid cause to those already existing. This is not all; the food does not always remain a simple, foreign substance, inducing irritation, but undergoes putrefactive decomposition, adding new and more active sources of disease.

Here the happy thought of Corvissart comes to our relief. The very function which is crippled we can replace; the very strength which is exhausted, we can

supply. By the administration of pepsin, we at once convert the ingesta into nutriment. They not only cease to be irritants to the digestive organs, but are absorbed into the circulation and become sources of power instead of weakness.

A few cases will illustrate this part of my subject. The first case is one reported in the *Revue Medico-Chir. de Paris.*

CASE I.—M. X——, aged four years, was admitted into the Hospital of St. Eugénie on the 23d day of November, 1854, under the care of M. Barthez.

For many months this child had suffered from frequent diarrhœa, until it was emaciated and debilitated to the last degree. The appetite was voracious, and the stools contained much undigested food. In the first place, M. Barthez tried the effect of properly adjusted diet, with small doses of trisnitrate of bismuth, but without avail. He then tried the pepsin, giving a dose (grs v.) at the commencement of a meal composed of the ordinary food of the hospital. On the following day, the 1st of December, the stools were of a better color, and in other respects more natural than they had been before. Encouraged by this result, the same quantity of pepsin was ordered to be given before each meal. December 3d, no stool. This was the first day, without a motion, for many months. December 4th, still no stool; pepsin discontinued. December 5th, two somewhat fluid motions, although there was no change in the diet. There was, however, no undigested matter in the motions. The child was much better in every respect. Three weeks afterward the child was discharged cured.

CASE II.—Alexander Lang, born on the 2d of August, was seized on the 25th of October with diarrhœa, after a very obstinate attack of erythema and eczema. This diarrhœa was accompanied with frequent hiccough and vomiting. On the 3d of November 8 grs. of pepsin were given night and morning. On the 4th the same treatment was continued, and now the vomiting and purging have disappeared; the stools have become natural. Pepsin discontinued.

Nov. 22d. The vomiting and purging have returned, Recourse was again had to pepsin.

Nov. 23d. The vomiting and purging have ceased, and the stools are natural. From this time the little patient went on well.

CASE III.—July 19, 1868. Thomas Kennedy, aged 15 months, has had diarrhœa a week; is fed; passages watery and contain undigested food.

℞ Am. pulv. pepsin, subnit. bismuth, aa. grs. v. every 3 or 4 hours. This single prescription terminated the disease.

CASE IV.—July 20, 1868. John Kniester, aged 18 months, is teething; diarrhœa has existed ten days; passages very watery and frequent, and contain undigested milk.

℞ Am. pepsin, and subnit. bismuth, aa. grs. v. every 4 hours.

This case was also relieved by a single prescription of ten powders.

The following case has been kindly furnished by Dr. R. E. Van Giesen, of Brooklyn:

CASE V.—January 5, 1869. Called to see Mary N., aged 7 months. She has had diarrhœa during the last two weeks. The stools are greenish, fluid, of a bad odor, and number as many as four or five in twenty-four hours. The child is free from pain, has no vomiting, and is tolerably well nourished, nursing from the breast. The mother has suffered from chronic diarrhœa some eighteen months; is better at times, but never entirely well. Prescribed for the child mistura cretæ, with bicarbonate of potassa and tinct. of kino. Under this treatment the passages were diminished in frequency, but their general character remained about the same; when the child ceases to take the remedy the passages increase in frequency.

At the end of a week seeing no radical improvement, and suspecting that the diarrhœa might depend upon disordered digestion rather than undue acidity, the treatment was abandoned and the following prescription substituted: ℞ Pepsin (Am.) 3j. bismuthi subnit. 3ss. Make 12 powders. S. one every 3 hours. This single prescription cured the case. The mother informed me to-day (February 20), that the child had been perfectly regular ever since.

As an experiment I placed the mother upon the same treatment for her longstanding diarrhœa, having no doubt that it was to some extent aggravated by indigestion, although I do not regard this as the remote cause. The result has thus far been satisfactory; the discharges have been reduced to two in 24 hours, and her general health is decidedly better. On account of the high percentage charged for her powders, she has not carried out the treatment with regularity. I am therefore about to give her the remedy in bulk, and feel confident that she will experience much relief from its use.

The writer by no means desires to exalt pepsin to the dignity of a specific in the diarrhœa of infants, but to bespeak for it a fair and impartial trial. It has physiological reasons in its favor, and has to some extent borne the test of experience.

Another most valuable use to which pepsin may be applied, is as an adjuvant to other remedies in the treatment of disease. More particular reference is now had to its power in improving and producing tolerance of cod-liver-oil in cases of pulmonary tuberculosis and other developments of the scrofulous diathesis.

I am not able to give any cases illustrating this part of my subject, but have been informed by good observers that much success has attended its use in such cases.

The last use of pepsin, to which I will invite your attention, is in the promotion of alimentation in disease. The following quotation from a lecture by Prof. Austin Flint, Sr., sets forth forcibly the importance of alimentation in disease: "The importance of this object in the treatment of individual cases of disease is to be estimated by the amount of impending danger from starvation as an incidental element. If to die by slow asthenia be often virtually to starve to death, then, no matter what the disease may be, *it is an object of fundamental importance to promote, as far as practicable, the assimilation of food.*"

In acute disease the failure of the vital powers is forestalled in proportion as nutritive supplies are assimilated. This is simply saying that, the *assimilation of nourishment is indispensable for the preservation of the powers of life.*

No matter what may be the seat or nature of the chronic affection, a diet fully up to the capacity of the organism for nutrition promotes recovery, if recovery be possible; and if recovery be not possible, by increasing the ability of the system to endure the affection, contributes to prolong life. The limitations to alimentation, therefore, relate wholly to the *physiological processes* which are *preliminary to nutrition*, namely: *digestion* and the other processes by which aliment is converted into food."

To whatever degree starvation may be a cause of death in disease—to whatever extent disease may overwhelm the power of life in *consequence* of *insufficient nutrition*—to that degree and to that extent is artificial

digestion important. The only question remaining to be answered, to complete the argument, is this: Can artificial digestion be successfully accomplished by the administration of pepsin? Undoubtedly it can. This is now a matter of recorded experience, sufficiently extensive to remove all doubt.

This use of pepsin is the *most important of all*, and affords the *largest field for its use*. Cases for this application of the remedy are of daily occurrence in every physician's practice.

The following cases reported by Dr. Longet, and quoted by Corvissart, are to the point:

Case I. Typhoid fever.—On the twenty-fourth day, *the patient could not support any food, even the lightest.*

The administration of pepsine produced immediately easy digestion. On suspending the remedy as a test, the old symptoms reappeared, with violent pain in the stomach and diarrhœa. The treatment was continued for ten days, when the patient digested without any help.

Case II.—Miss ——, aged fifteen years, on the twenty-fourth day of a serious typhoid affection, although convalescent, was in an alarming state of debility, because she *could not bear any food, not even the lightest.* I ordered her pepsin in powders. The first half dose, which was administered in tapioca broth, acted so well that a second was given to the patient three hours after the first, and was digested without difficulty. The second day, the same result was obtained with three broths and a raw egg. The third day the dose was intentionally omitted from the broth in the morning, and this caused violent pains in the stomach and intestines, and a watery stool. The two others, however, which were administered the same day, and contained each half a dose of pepsin, resulted in a complete and easy digestion. The fourth day of the administration of pepsin, the patient ate soups and chicken. After this, a more and more substantial food could be given, but every time the dose was suppressed for a meal, the digestion was more or less painful. This state lasted ten days, when the digestion became normal.

Case III.—Dr. Rilliet, of Geneva, contributes a case of chloro-anæmia depending upon dyspepsia. After detailing the daily treatment by pepsin from the eleventh to the nineteenth of July, he closes by saying the patient left Geneva in a satisfactory state of health, and although he desired to be informed if the disease returned, he had received no communication to that effect.

The following case kindly furnished by Dr. Sanford, of Brooklyn, very well illustrates this point.

Case IV.—Fannie R. had capillary bronchitis, following scarlatina, which reduced her greatly. Thursday and Friday, February 12 and 13, vomiting set in, which grew more and more severe in spite of my remedies. Having taken but little food before, she was growing rapidly weak, and I knew that she would be able to endure but a short time, unless her stomach could be quieted. Liquid bismuth seemed to produce a good effect, but would not enable food to be retained, excepting at very long intervals and in very small quantities. Saturday I prescribed as follows: ℞ Pepsin (Am.) ʒ j., bismuthi subnit., grs. xv., in six powders.—Mix one powder in a tablespoonful of beef essence, and give a teaspoonful every half hour.

The food thus mixed with the powder was retained from the first, and given every half hour all Saturday night.

Sunday I found her much stronger. During the night she had taken four ounces of beef essence.

I then ordered the food without the pepsin, which I found at my visit in the evening had been retained several hours, but then vomiting had returned, but in a much lighter form. I ordered the pepsin powders as before, and found, Monday morning, that the food was retained immediately on their use.

Monday evening.—Still continue the powders, and give quinine every three hours.

Tuesday.—Discontinued the pepsin.

Wednesday.—Food and tonics acting perfectly; has a little appetite; other food taken this morning was digested without the least trouble.

Thursday.—Child improving very rapidly; no further trouble with the stomach.

Case V.—July 28, 1868.—D. N——, an infant, two weeks old, said to have been born in a plump and healthy condition. Its present state is one directly opposite. Its face is thin and skinny, exhibiting painfully the bony outline. It has thin, muddy, but not frequent alvine discharges, and vomits whatever it swallows, even to half a teaspoonful of its mother's milk. It lies stupid, with its eyes closed, and refuses the breast. It has also an intense muguet. In this extremity, I ordered three grains of American pepsin to be given every three hours, and half a teaspoonful of its mother's milk to be administered with great frequency. The following morning I found the mother, through utter hopelessness, had greatly neglected my directions. It was only through much persuasion and the co-operation of a friendly neighbor that she was induced to pursue the treatment. During that day the vomiting ceased, and on the following day the child took the breast, and retained and digested its nourishment. From this day it steadily improved in condition, and its diarrhœa and muguet disappeared.

On the 8th, one week after my last visit, I was called to see its mother, and hardly could have recognized the infant which so lately had seemed in the last stage of inanition. Its face had acquired a comparative fulness, its color was restored, it nursed well and freely, and seemed as likely to live and thrive as any infant.

This child was simply starving to death. What led to its condition of inanition I could not satisfactorily learn, but its state seemed most hopeless. This case illustrates, in a remarkable manner, how little assistance will restore the digestive faculty to its normal activity, and enable it to perform its functions unassisted.

I have now briefly indicated the chief uses of pepsin in the treatment of disease; each particular use has been illustrated by a few appropriate illustrative cases, collected from various sources. It seems to the writer that the therapeutical value of pepsin as a remedy has been abundantly established by the experience of the medical profession. High authority has declared in its favor. Dr. S. King Chambers, in speaking of it in diseases in which there exists "an anæmic condition of the alimentary canal which results in a disgust for food," says, "I do not know any remedy, which more *readily*, *obviously*, and *directly* does what it can towards checking such a state of things than pepsin. It acts *immediately* and *surely*."

In another place he says: "On the whole, then, I cannot but conclude that we have in pepsine a *valuable* and *safe remedy*, and an important aid to rational medicine." I cannot refrain from quoting one more case from Dr. Chambers on Indigestion. Amelia D., aged twenty, was admited to St. Mary's, June 19th, 1857. She was well fed and not overworked; but her employment necessarily confined her a good deal to the house. The thorax was healthy, though she told a tale of having had cough and hæmoptysis. She complained of pain in the left side and sickness in the morning, especially

after breakfast. Her appetite was very bad and the sight of food made her gorge rise at it; but still she forced herself to eat.

"She was at first dieted on milk guarded with lime-water, rice pudding, and ice, and took a grain of opium every night.

"After five days she was no better, so the opium was left off, and ten grains of pepsin powder three times a day substituted for it. In three days her appetite had returned, the vomiting and nausea had ceased, and she spontaneously asked for meat. She continued taking that without vomiting." "It would be easy to cite cases where drugs had effected the same purpose, but I chose rather to select an instance of the simplest form of restorative treatment, in order to direct the reader's thoughts to the *true* theory of healing."

Much contrariety of opinion has existed as to the usefulness of pepsin as a remedy.

This is sufficiently explained by the following paragraph from Dr. Chambers: "But I think, since its introduction to general use through the ingenious preparation of Dr. Corvissart, it has caused more disappointment than satisfaction. This is because it has been *given in unsuitable cases and because impossible expectations have been founded upon it.*"

Another reason why pepsin has in many instances caused disappointment, and consequently lost favor, is made apparent by the following extract from Dr. Pavy, of Guy's Hospital, London: "Now, speaking from the examination of several specimens of pepsin procured from some of the largest pharmaceutical establishments in London, the bulk of that which is sold is totally devoid of any active property. Whether this arises from too much heat having been employed in its preparation, or from whatever cause, the fact remains that the chief portion of the pepsin sold and administered, being perfectly inert as a digestive principle, is destitute of any real value as an agent for affording assistance towards the performance of digestion."

It would appear, therefore, that the successes and failures which have attended the introduction of pepsin into the Materia Medica are easily reconcilable; the successes have been real and in accordance with physiological reasoning; the failures are to be attributed to improper use, extravagant expectation, and inert pepsins.

It is believed that the facts and reasons set forth in this paper are sufficient to prevent the repetition of the former, and the production of a domestic and efficient pepsin may obviate the latter cause of failure.

This article called American pepsin is a true and veritable representation of the gastric fluid, obtained from the stomach of the calf, and prepared without the aid of heat. It is of uniform strength and capable of being kept indefinitely. Its superiority to the best and most approved foreign articles will appear from the following comparative experiments: Two drachms of fresh beef were subjected respectively to the digestive action of the three following varieties of pepsin, viz., Boudault's, Morson's pepsina porci, and the American pepsin. The conditions in each were precisely the same, and the duration of the process alike in all. After the completion of the digestion the following residua were left by each respectively: After digestion in American pepsin, 5 grs. dry; after each of the others, 10 grs. dry. Now one drachm of fresh beef desiccated to dryness weighs about 15 grs., so that one grain of completely dried beef represents 4 grs. of fresh beef. It therefore follows that American pepsin digested 100 grs. or $\frac{5}{6}$ of the beef; while each of the foreign articles digested 80 grs. or $\frac{2}{3}$ of the beef.

In conclusion I would commend pepsin to the Association as a valuable addition to our therapeutical agents, capable of an extensive application in the treatment of disease, and American pepsin as a reliable substitute for all articles of foreign production.

Progress of Medical Science.

Copaiba in Hæmoptysis.—At various times the employment of copaiba has been recommended as an hæmostatic in hæmoptysis. Dr. Henry Almés reports (*Gaz. Méd. de Paris*, 1869, *No.* 2) five cases in which it answered the indications, after the failure of other means. The remedy was administered in capsules. The amount of copaiba given is not mentioned. Dr. Almés states that he is in the habit of administering this remedy in all cases of hæmoptysis under his care, and with the most constantly satisfactory results.

We would add that as the hemorrhage of hæmoptysis so often ceases spontaneously, it is difficult to estimate the amount of influence exercised by any remedy in such cases. The fact of the administration of a remedy to stop the bleeding tranquillizes the patient's mind, and thus, moderating the force of the heart's action, favors clotting.

Living Germs in the Air.—The air we breathe and the water we drink are full of spores and organic germs, all of which seem to have a purpose to subserve in the economy of things. If any one doubts the statement of scientific men regarding the presence of these germs, he has only to become acquainted with the use of the microscope to convince himself of their entire truthfulness. Separate from the bark of the common maple tree a bit of the adhering dry lichen or moss, as it is called, moisten it with water, and place over it a glass slide. The spores or seeds, which lie dormant when the lichen is dry, immediately become vitalized, and rising into the air, are caught upon the glass, and with a power of four hundred diameters can be seen and studied. The simple experiment will illustrate the origin and nature of what are called spores, and the air is filled with thousands of varieties, arising from as many sources. Dr. Smith and Mr. Dancer, of Manchester, England, have recently been examining the air of that city, and have found it loaded with them. The air was first washed by shaking it in a bottle with distilled water, and in a drop of water it was reckoned that there were about two hundred and fifty thousand spores. In the quantity of air respired by a man in ten hours there would be more than thirty-seven and a half millions. All these germs float in the air, ready to spring into activity whenever the conditions of life are favorable. The varieties and sources of fungoid growths from which the spores arise are wonderful. A fungus is known which develops only on the corpses of spiders; another, which grows only on the hoofs of horses in a state of decomposition. The *isaria* has yet been observed only on certain night butterflies; there are other species which invade the *larvæ* and chrysalids. Hooker has discovered a fungus which attains considerable dimensions (from ten to twelve centimetres), but which is found absolutely on the neck of a certain caterpillar in tropical countries. It vegetates on the animal, fructifies on it, and the caterpillar buries it with itself in the ground, whence it springs like a funereal plume. Still more, a vegetable is known, the *racodium cellare*, which has never been found except on the casks in wine cellars, and another which lives only on the drops of soot which the workmen let fall on the soil of the mines. "Have the seeds of these

vegetables remained without use from the origin of the world to the day that they found their proper soil!"—*Journal of Chemistry.*

ALVEOLAR ABSCESS.—Prof. Judd (*Missouri Dental Journal*) treats incipient alveolar abscess successfully, by long-continued freezing of the parts with Richardson's apparatus. The tooth should be frozen its whole length, which will take from fifteen to thirty minutes. Immediate relief from the pain will ensue, and in many cases it will not return.

THE EFFECTS OF ALCOHOL ON THE SYSTEM.—Dr. Letheby (*Chem. News*) states that the effects of alcohol are much modified by the substances with which it is associated in different alcoholic liquids—beers and ale, for example, act on the respiratory function by reason of the saccharine and nitrogenous matters they contain; wine, also, as well as cider and perry, have a similar action, and in proportion to their saccharine and acid constituents, brandy and gin lessen the respiratory changes, and the latter acts on the kidneys by reason of the volatile oil it contains; whiskey is uncertain in its effect upon the lungs; while rum, like beer and ale, is a true restorative, as it sustains and increases the vital powers; and he says that the old-fashioned combination of rum and milk is the most powerful restorative with which he is acquainted.

NEW PREPARATION OF LUPULINE.—Dr. Dyce Duckworth recommends the following formula: Lupuline, 2 oz.; spirit. ammon. aromat., a pint. Macerate for seven days, agitating occasionally; then filter and add sufficient of the menstruum to make up to a pint. The dose of this is from twenty minims to one fluid drachm. He proposes to call it "tinctura lupulinæ ammoniata." He considers this preparation of the hop as the best we at present possess. According to Christison, the dose of tinctura lupuli should be from one fluid ounce to one fluid ounce and a half, to produce any hypnotic effect; the ordinary dose consists of as many drachms. Dr. Ives, of New Haven, states that the tincture of lupuline is an effectual hypnotic in restlessness, the result of nervous irritability, and in delirium tremens. Some advantage, too, is derived from the presence of ammonia in considerable quantity, and this whether the preparation be exhibited as a hypnotic, or as a tonic combination of bitter and ammonia.—*British Medical Journal.*

ON LUPUS ERYTHEMATOSUS.—Erasmus Wilson, F.R.C. (*Journal of Cutaneous Medicine*), lays down the following interesting facts, with reference to lupus erythematosus:—

It is a rare affection, as compared with other diseases of the skin, occurring only 56 times in 9,000 cases; that is somewhat more than six in the thousand, or little more than one-half per cent. Its most common seat is the nose, next the cheeks, particularly in the neighborhood of the eyelids, then the ears, next the scalp, and then the fingers and the toes.

Looking to the statistics of this disease, it is more common among females than in males, and especially in persons who complain habitually of cold hands and cold feet. This affection is due to deficient nutritive power, and consequently deficient vital power; therefore, the development of the disease at the periphery and at the extremities of the body is an occurrence that might be predicted. Looking to the statistics he finds that 41 occurred among females and 15 for the males. The age of origin of the affection ranges between 12 and 48, but in one instance it made its first appearance as late as 71. The most common period of origin is that between 20 and 30, in which there occur 22; and secondly, between 30 and 40, which gives 13; consequently, between the ages of 20 and 40, the number is 35. Of the remaining 21, ten are referable to the period between 10 and 20, and ten to that between 40 and 50; the twenty-first, being the exceptional case, first developed at the age of 71.

The chronic nature of the affection is shown by the fact that in one instance the disease had been in existence for forty-five years; 6 had lasted between 10 and 13 years, 17 between 5 and 10 years, and 24 between 1 year and 5, the remaining 8 only having existed for less than one year when application was made for treatment.

In the 56 cases referred to, the disease attacked the nose 36 times; the cheek, 24 times; the fingers, including the toes, 12 times; the scalp, 11 times; the eyelids, 10 times; the ears, 7 times, and the upper lip, 4 times.

He concludes with reference to treatment, that lupus erythematosus is, in general, curable, but not easily curable. It is apt to get well spontaneously, and upon this fact our reliance of effecting a cure is placed.

Patients should be provided with good air, proper means of exercise, a congenial climate, sufficient clothing, and a generous and nutritive diet. Nutritive medicines, like cod-liver oil, simple and phosphoretted, and arsenic singly, or in combination with iron. His favorite tonics are citrate of iron and quinine; nitro-hydrochloric acid, with tincture of orange-peel, of columba, of gentian, and the liquor strychniæ; sulphuric acid with cinchona.

The local remedies to restore power and health to the skin are, the cold bath, frictions and ablutions, with some kind of tar soap, or carbolic soap, or even sulphur soap, and the application of stimulant remedies. His favorite remedies are, carbolic acid, the liquor hydrargyri nitratis acidus, and a solution of equal parts of potassa fusa and water.

ASTHMA CURED BY BROMIDE OF POTASSIUM.—Dr. Begbie (*Canada Med. Journal*) reports having cured two cases of asthma of long standing, where the patients had renounced all hope of benefit from drugs, by the use of bromide of potassium in full doses, night and morning.

THE ADMINISTRATION OF CHLOROFORM.—A. M. Rosebrugh, M.D., Surgeon to the Toronto Eye Dispensary, in a paper on "Chloroform and a new method of Administering it," states that he has been conducting a series of experiments with the object of determining the minimum quantity of chloroform necessary for inducing narcotism at different ages, and for different purposes, and to administer the chloroform in such a manner as to gain a pretty correct estimate of the degree of dilution of the vapor that is being administered at a given time. In this he has been successful. His method of administering the anæsthetic is as follows: the patient is placed on his back and a linen napkin is placed over the face, so that one thickness only covers it. A two-drachm vial is filled with chloroform; an assistant observes the pulse, and holds the watch in such a position that the administrator may see the second-hand. The administrator assumes a convenient position at the head of the patient, and, everything being ready, with the left hand he raises the napkin so that it does not touch the nose, about one and a half inches from the mouth. The chloroform is now carefully dropped upon the napkin, over the mouth, a definite number of drops being allowed to fall per minute, commencing with a minimum quantity and gradually increasing until, in the third minute, the maximum quantity is reached. One-third the maximum dose is given during the first minute, and two-thirds

during the second. The maximum dose should be continued from two to six minutes, according to the effect of the anæsthetic upon the patient, and the degree of narcotism desired. Where it is necessary to keep up the narcotism for a length of time, the maximum quantity of chloroform may be repeated occasionally—as often as the condition of the patient may seem to require—or about one-half the maximum quantity may be administered continuously. No attempt has hitherto been made to conduct the *guttatim* method so that, 1st. The administration shall commence with an almost imperceptible quantity of chloroform-vapor, and the strength be gradually increased as the system will tolerate it. 2d. After tolerance is established, the administration shall continue with a certain definite quantity per minute until narcotism is established. 3d. The administrator shall be able to ascertain the percentage of chloroform-vapor that is being administered at a given time. In this he claims originality.

To adults, thirty drops per minute is sufficient in most cases. For children eleven or twelve years of age, a maximum quantity of eighteen drops per minute is sufficient. In all cases about one-third the maximum dose is given the first minute, and two-thirds the second minute; the maximum dose never being reached until the third minute from the commencement of the inhalation.

Hypodermic Injections of Morphia in Labor.—Dr. E. Korman, Leipzig (*Am. Jour. Obstetrics*), considers hypodermic injections of the sulphate of morphia superior to any anæsthetic during labor. He injects very slowly one-eighth to three-fifths of a grain in the thigh. The indications for the injection are: Primiparæ, narrow pelvis, spasmodic contractions, and painful complications generally.

Penetrating Wound of Abdomen.—Hernia of a portion of the Spleen.—Recovery.—In connection with some remarks upon the functions of the spleen, Dr. G. Bouteiller communicates to the *Mouvement Medical* (No. 24, 1868) the following case: On July 13, 1867, he was called at 3 o'clock in the morning, to render professional services to a young man who had ripped open his belly with a knife. He had eaten nothing since 12 o'clock the previous morning, but had indulged in copious libations during the day. At 11 o'clock at night he repaired, in a state of insanity, to the house of a lady, in whose company he found her brother. He then, in a fit of jealousy, cut himself with the knife. (The instrument is not described.) His relatives, shortly after informed of the accident, took him home in a carriage, and sent for Dr. Bouteiller. The surgeon found a transverse wound, a centimetre and a half in length, situated 2½ cent. to the left of the median line of the trunk, and 3 cent. below a horizontal line passing across the navel. In the morning, Dr. Picard was called in consultation and they diagnosed a hernia of the inferior extremity of the spleen, about 4 cent. in length, strangulated in the centre of the wound. A ligature was passed around the protruded portion of spleen, and cold emollient applications were made to the abdomen. Vomiting had taken place, but contained no traces of blood. Retention of urine supervened, requiring the use of the catheter. July 14 and 15—Some pains in the belly, especially in the vicinity of the wound; complete repose. Fomentations all day. Soup. July 17—The ligature came away. Simple dressing. The patient was well by the 23d. During these ten days, there was scarcely any fever, except perhaps during the first two days. The patient was examined May 1st, 1868. There was a linear cicatrix of a little over 1 cent. in length. The health is perfect, and the patient attends to his affairs as well as before the accident. He has not a very great appetite, and is conscious of rumblings in the region of the stomach after indulging in a hearty meal.

What is remarkable in this wound, remarks Dr. B., is the hernia of the spleen, through a narrow wound, situated near to the middle line. Besides, this young man had not eaten since morning and the accident occurred at 11 o'clock at night. It is not probable, therefore, that his stomach was distended. But it must be remembered that the wound was made by the right hand, and consequently directed obliquely toward the left side; and in addition, the motion of the carriage tended to increase any disposition to protrusion.

Alcohol in Large Doses in Poisoning by Mushrooms.—M. Poulet, in a communication to the Académie des Sciences, affirms that alcohol in large doses is a veritable antidote to the poisonous mushrooms of the genus *amanite;* and he believes it equally valuable in the poisoning by other species of mushroom. The author adds that ebullition in water, impregnated with salt or vinegar, is insufficient to render the poisonous varieties inoffensive, and that the *agaric bulbeux* in particular always retains a great portion of its toxic principle.—*Gaz. Hebd.*, 1864, No. 41.

Osseous Regeneration of Sternum.—Dr. Enrico Bottini communicates to the *Annali Universali di Medicina* the particulars of the case of a soldier, æt. 30, wounded in the superior region of the sternum during the Italian campaign of 1866. The ball lodged, producing caries, necessitating an operation for its removal which exposed the pleural sac, the osseous walls of the sternum having been gradually absorbed, and a prompt recovery ensued, and new osseous tissue was formed analogous, in resistance to the touch, to the rest of the sternum.

The Introduction of the Clamp in Ovariotomy.—Mr. T. Spencer Wells writes as follows to the editor of the *Boston Medical and Surgical Journal*, in reply to a letter from Dr. Parks, inquiring who was entitled to the honor of having invented the clamp used in his operations in ovariotomy:

"The credit of the introduction is due to Mr. Hutchinson, Surgeon to the London Hospital. He first used one in 1858. It was simply the common calliper of carpenters, which he used and left applied, handles and all. Then the handles were made movable, so that they could be taken off as soon as the clamp was fixed. Then I made the blades parallel, and did without handles. But I afterwards returned towards the original form of clamp, altering the joint and the form of the opposing surfaces of the clamp until I arrived at that which I now use. You may see it figured in Druitt's Vade Mecum, ninth edition, 1865, page 541. I have now (January 25, 1869,) completed 300 cases. Of the

1st	100	cases,	64	recovered	and	34	died.
2d	100	"	72	"	"	28	"
3d	100	"	77	"	"	23	"
Total	300	"	213	"	"	85	"

A general mortality of 28 per cent., but it is very encouraging to note that the mortality has been steadily diminishing with increasing experience."

Since October last he has completed the operation of ovariotomy in 36 cases. Of the thirty-six women, 31 recovered and 5 died; and it is a remarkable fact that in *every case* in which the pedicle was long enough for him to use the clamp the patient recovered.

THE PONS VAROLII THE NERVOUS CENTRE OF GENERAL CONVULSIONS.—H. Nothnagel (*Virchow's Archives*) arrives at the following conclusions in regard to the *nervous centre of general convulsions*, which are derived from actual experiments. The centre of general convulsions is situated in the substance of the pons. Its lower boundary is corresponding to a section at the height of the inferior border of the pons. The faculty to perform the function of a centre of spasms is to be denied to the substance of the medulla oblongata.

Finally, he endeavors to prove that the spasms are produced by way of reflex. In some instances the section of the medulla oblongata had been made below the pons, the animals remaining absolutely quiet. Again; the convulsions occurred if the section had left a portion of the pons connected with the medulla oblongata, showing the centre of action to be situated outside of the medulla.

At last the anatomical condition of the region of spasms is confirmatory to the view of reflex action. The region nearly corresponds to the situation of the gray nuclei and root-fibres of the sensitive cranial nerves. While the nuclei and roots of the motor cranial nerves are near the raphe, those of the sensitive nerves are more lateral. The root-fibres of the portio major trigemini, in particular, descend, according to Schroeder van der Kolk, through the whole length of the medulla. This anatomical condition, it must be conceded, is no direct proof of a reflex action, but it renders it admissible and plausible.

From all this it seems that the convulsions following the injury of a defined region on the floor of the fourth ventricle are to be explained as spasms induced by reflex action.

FURROWS ON THE NAILS AS THE RESULT OF ILLNESS.—In a recent number of the *Lancet*, Samuel Wilks, M.D., Physician to Guy's Hospital, mentions the fact that the traces of a past illness are indicated by markings or furrows on the nails. His own distinct knowledge of the fact that the nails become altered in disease was obtained, when a non-professional gentleman observed the circumstance for himself, and was so much interested in it that he referred the matter to a distinguished natural philosopher. It was after a severe attack of diarrhœa, which caused almost as much prostration as Asiatic cholera, that he discovered a white line or depression at the roots of the nails. Having formed a pretty accurate idea of their rate of growth, he was convinced that the markings corresponded with the date of illness. These marks are caused by a slight furrow, which is found more especially on the middle of the nail, and more distinct on that of the thumb. They point, no doubt, to a sudden arrest of the nutritive process during the time of the illness, and herein lies the interest of the observation. In cases of fever it is known that the most profound changes take place in all the tissues of the body. In scarlet fever, the whole of the epithelial surface within and without the body is affected, and, as a result, we may witness a desquamation of the cuticle, falling of the hair, and separation of the nails. When the fever is at its height, we can have then little doubt of the changes taking place in the tissues, and can feel no surprise that the nails show evidence of the former conflagration. As the patient recovers, and a new cuticle forms, and the hair begins to grow, the nail proceeds to shoot forward afresh, and it is not long before the latter exhibits a transverse furrow, indicative of the previous illness. It is possible, therefore, to ascertain the date of the attack. Physiologists say that the thumb nail grows its whole length twice in a year, and thus it follows that if the furrow be found in the middle of the nail, the illness occurred three months before. This fact may serve for a limited period, like "foot-prints on the sands of time," as some additional proof of previous serious illness. For instance, a patient with a cardiac disorder stated that he had an illness three months before, and on his nails some transverse markings were found; also another suffering from phthisis said that his illness resulted from an inflammation of the lungs, occurring a few weeks previously, and on his nails also some distinct lines were discovered. That a severe diarrhœa could produce such a cessation of the nutritive process as to exhibit its effects on the nails, is a fact for which he was unprepared had it not been apparent to his eyes. In conclusion, he promises to present to his fellow-practitioners at some future date, further accurate clinical observations with reference to the subject.

ECTROPIUM INTESTINORUM.—A mother, 21 years of age, was delivered of a male child, in which the following state of things existed:—From an opening two inches in length at the umbilical region, ¼ inch to the right of the umbilicus, and parallel to the linea alba, bulged out the greater portion of the intestines. Their coats were hypertrophied, and the abdominal walls were to such an extent contracted, as to allow only the admission of the small finger on both sides of the orifice. The rigidity of the abdominal wall did not allow of any stretching. It was an eight-months child, passed its natural secretions, fæces and urine. In the morning it vomited bile, and in the afternoon nursed at its mother's breast; its pulse was regular, as was also its respiration. The portions out were made up by the duodenum, jejunum, and ileum of the small intestines, and the colon and a portion of the rectum of the large intestines. The child died the day after its birth, having lived exactly 21¼ hours.—GEO. FREDIGKE, *in Chicago Medical Examiner*.

DILATATION OF THE OS-UTERI AND PERINEUM DURING LABOR.—Dr. George Kilner (*Chicago Medical Journal*), in a communication upon this subject, recommends, when other medicaments have failed, the use of lobelin. He praises its efficacy, and recommends that a suppository be made of lobelin, gr. v., to cacao butter, ʒj., and introduced into the rectum immediately upon the subsidence of a pain, and also anointing the os with the same. He states that fifteen or twenty minutes' retention of the suppository is generally sufficient to produce complete restoration of the os and perineum.

GOITRE CRETINISM.—M. Garrigon, consulting physician at the Mineral Springs of Aix, asserts that these endemics are due to the existence of magnesia, and more especially to the silicate of that earth, in the soil, which modifies all organisms, both vegetable and animal. His doctrine is based upon extensive observations made in the districts of the Pyrenees where these maladies are endemic, and are coincident with such geological constitution.

TEST-PAPER FOR HYDROCYANIC ACID.—M. Schonbein, of Bâle, Switzerland, has discovered and prepared a test-paper for the detection of hydrocyanic acid, even when present in the most extreme atomic division.

TREATMENT OF SUNSTROKE.—G. W. MacLeon, M.D., having had an extensive experience in the treatment of this in India, recommends the following: The person stricken down by heat, is to be at once removed to a shade, stripped and douched with cold water over head, neck, and chest. By this means a powerful impression is made upon the cutaneous nerves, the effect of which is to set suspended respiration in motion first

by catches and gasps, finally in a regular manner. If the heat of the skin be high, the cold douches should be repeated. The patient should also be made to drink freely of ice-water. Ammonia should also be inhaled, from time to time. As soon as sensibility is restored it is well to give a purgative. If sensibility is not restored by the above means, the head should be shaved and a blister applied, and in the convulsive form chloroform may be inhaled.—*Lancet.*

Lactation by a Woman Sixty Years Old.—Dr. William Gillespie records in the Boston *Medical and Surgical Journal* the case of a widowed lady, aged about 60, whose daughter having died, leaving a child two months old, took the child and tried to raise it by feeding. The child's bowels became deranged, and being unable to procure a nurse, and her breasts being large and full, he advised her to apply the child in hopes milk would come. She followed his advice perseveringly, and to her astonishment a plentiful secretion of milk was the result. With this she nourished the child, which afterwards became strong and hearty.

Oulachan Oil.—The distinguished naturalist, Robert Brown, in a recent communication to the London *Pharmaceutical Journal*, speaks in the highest terms of this oil, which is obtained from the oulachan, a species of the salmon, found along the North Pacific coast. Mr. Brown speaks of its beneficial effects in phthisis, hæmoptysis, and other pulmonary complaints, as most wonderful. "It relieves violent coughs in a most remarkable manner, and equally conduces to the accumulation of flesh. In a word, it has all the properties of cod-liver oil and other fish oils in an intensified degree, without their nauseous taste." This oil can be taken without the slightest difficulty, even by those in whom cod-liver oil would produce nausea and vomiting. The medical officers of the Hudson Bay Company have long preferred prescribing it to cod-liver oil, both in their own families and in general practice. Mr. Brown in closing says, "In the course of my journeyings into the interior of Oregon and elsewhere, I had occasion to recommend and procure some of the oil for friends troubled with phthisical complaints, and in every instance I have found its merits extolled in the highest degree."

Tonka Bean in Pertussis.—It having been suggested that the tonka bean would be useful in pertussis, as it contained a large percentage of coumarin, the active principle of clover-tops, trifolium melilotis, recommended for that disease, to test its qualities it was given to a child three years old, with encouraging results. Subsequently it was given in four other cases, two of which were of a grave type. The oldest—a girl five years old—was a great sufferer, the paroxysms being frequent and exceedingly severe, and disturbing her sleep frequently during the night. She began with five drops of the fluid extract every three hours, increased to eight after the third dose. Relief was soon felt, and the paroxysms gradually subsiding she soon slept all night, and her cough now seems more like that of an ordinary cold. In the tonka bean I think we have a means of saving many lives, besides giving relief to all who suffer from the disease.—John Cooper, M.D., *in the Med. and Surg. Reporter.*

On the Antagonism of Yellow Fever and Catarrh.—Wm. H. Ford, M.D. (*N. O. Journal of Medicine*), in an article upon this subject, gives the following as the conclusions at which he has arrived: 1st. That epidemics of yellow fever and of catarrh *never* co-exist. 2d. That break-bone fever may occur in a summer, either generally catarrhal or generally miasmatic, and that the disease affects principally the origin and decline of the yellow fever, when it occurs in a miasmatic season, and the *acme* of the season when it qualifies a catarrhal epidemic. 3d. That when catarrh occurs during the prevalence of yellow fever, the catarrh is "sporadic," and that catarrh is mostly absent during yellow fever seasons. 4th. That when yellow fever occurs during the prevalence of catarrh, the yellow fever is "sporadic," and that yellow fever is mostly absent during catarrhal seasons. 5th. That catarrh prevails almost exclusively during the origin and decline of yellow fever. 6th. That the yellow fever, when it appears during a catarrhal season, affects the most miasmatic part of the season, viz., the end of September and the beginning of October. 7th. That from the recorded history of the only visitation of Asiatic cholera to our city (New Orleans), as an epidemic, this disease undeniably shows a miasmatic origin, by exhibiting relations to catarrh precisely similar to those which obtain between yellow fever and catarrh. We therefore conclude generally, that from a consideration of forty-two years, yellow fever is directly antagonistic to catarrhal diseases.

Hypodermic Medication.—S. F. Starley, M.D., in closing a paper upon this subject, gives the following important testimony to the efficiency of this treatment: "I have used quinine hypodermically some hundreds of times, and with the exception of two or three cases of abscess which gave little trouble, and the case of sloughing of a small portion of integument, have seen no ill result follow its use. But on the other hand, its effects, when administered in this way, have been so prompt and so permanent, that several persons to whom I have given it, now refuse to take the remedy by the mouth at all, and when quinine is prescribed, they insist upon having it injected under the skin."

Idiopathic Priapism.—J. R. Smith, M.D., has reported in the *N. O. Journal of Medicine*, a case of persistent priapism, occurring in a patient about twenty-five years old. He had had gonorrhœa seven years before, but was not left with stricture, and had not had connection for nearly two weeks previous to the priapism. In spite of most active treatment applied most assiduously, the priapism continued for about ten days. At the end of this time he was sent to a different part of the country, and the "disease gradually, and almost imperceptibly gave way."

Intra-Osseous Abscess.—A lad about fifteen years of age had experienced more or less constant pain in the upper part of the tibia for three months, it being augmented at night. The youth had not been injured, nor had he been ill for some years past. The upper third of the tibia was enlarged to the size of the adult bone, the skin over it being red, hot, and painful. There was no fluctuation. Leeches and poultice, with good diet and wine, were ordered. All the inflammatory symptoms subsided, but in a few days returned. Mr. Maunder suspected abscess in the bone; and the trephine discovered one in the centre of the tibia, beneath the red spot on the skin. Twenty-four hours subsequent to the operation, the painful sensations subsided, and the wound healed rapidly under a dressing of chalk and carbolic acid oil.—*Lancet.*

Treatment of Fracture of the Clavicle.—Mr. Grewcock thus speaks of a method of treating this fracture: "This plan of treating this accident is not entirely new. A simple cross-shaped splint fulfils perfectly all the three indications of the accident, without the disadvantages of the figure-of-8 bandage. The manner of its application is exceedingly simple. The

shoulders having been brought well back, are fastened to the extremities of the splint by means of a bandage passing under the axilla and over the shoulders, thus effectually overcoming the resistance of the thoracic muscles. A small pad is placed in the axilla, and the bandage passed over the arm and fastened behind to the splint, keeps the pad in place."—*British Medical Journal.*

THE USE OF CARBOLIC ACID.—The *Lancet* gives the subjoined summary of the differing experience among London surgeons, with regard to the use of carbolic acid:

At *St. Bartholomew's* Mr. Paget does not as yet feel able to form an opinion on Professor Lister's mode of using carbolic acid from any observations of his own. In the few cases in which he has tried it, it has been useless; but this may possibly have been, Mr. Paget thinks, from some error in the mode of application. He intends to make further trial of the agent.

Mr. Holmes Coote has found carbolic acid very useful as a caustic in the treatment of syphilitic sores, mucous tubercles, &c., as well as generally in foul wounds. He does not approve of Lister's method, which he considers meddlesome. Mr. Coote's experience is that wounds unite readily when left alone.

So again at *Guy's*. Mr. Birkett tells us that he has not had much experience of carbolic acid. He finds his cases do very well on the usual plan.

On the other hand, Mr. Bryant, at the same hospital, gives a more favorable opinion of the substance. He is giving Lister's plan of the treatment of wounds a good trial, and for some months has been washing out all wounds made by operation with a watery solution of carbolic acid, and dressing them with a solution of the same acid in olive oil. Mr. Bryant says that his operations have also certainly done well, for he has obtained in some cases primary union of the wounds, whilst in others there has been little or no purulent discharge. How much of such success depends upon the plan of dressing, however, he cannot say, for he has at the same time applied torsion to all the vessels, and used sutures as little as possible. He has also followed the practice, which he has adopted for some years, of applying firm pressure to all wounds by means of pads of lint and strapping. Upon the whole the results have been good, and he is disposed to attribute them in a great measure to the use of the carbolic acid. The strength of the watery solution employed by him is one part in thirty; of the oily, one in ten.

ARSENIC IN DISEASES OF THE SKIN.—Thomas Hunt, F.R.C.S., surgeon to the London Western Dispensary for Diseases of the Skin (*Journal of Cutaneous Medicine*), speaks of arsenic as follows: We have a remedy for at least one-half of the diseases to which man is subject. Arsenic, therefore, if rightly used, is adapted to the treatment of six out of every seven cases of chronic skin disease which the physician is asked to relieve. Supposing the preparation to be Fowler's solution, he states that it should be carefully administered. *First*, It should be given in divided doses—three doses in twenty-four hours, simply to avoid an unnecessarily large dose. *Second*, It should be diluted with pure water, or if the case require the influence of antimony, the vinum antimonii, say thirty-five minims, may be combined with five minims of the liquor arsenicalis, and this may be taken diluted three times a day. *Third*, This dose should be taken with, or immediately *after*, a meal, in order that, being mixed with the patient's food, it may find a ready entrance into the blood, and that the bare possibility of its irritating the mucous membrane of the stomach or bowels may be avoided. Not that there is any danger of mischief, but the patient, aware that he is taking arsenic, may thus be disabused of all fanciful or imaginary suffering of this kind. *Fourth*, Arsenic acts very slowly, and therefore it is best to begin with an average dose, say five minims of Fowler's solution, and this should be increased, not day by day, as was the practice thirty years ago, but two, three, or four weeks should be allowed to elapse before any necessity can exist for augmenting the dose. If an active or severe inflammation of the tunica conjunctiva in *both* eyes should be set up, then the medicine is not to be abandoned in a panic, but the dose may be reduced to four minims, and in a week or ten days the conjunctiva will be less inflamed. During the first week, if the patient has been properly prepared for the course, the disease of the skin will show some amendment; it will be shorn of its strength, and from this time the cure will be easy enough, although it may take many weeks, or even months, to effect it entirely. The health of the patient must be closely watched, and the secretions carefully sustained. Above all, the bowels must not be allowed to act sluggishly. In many cases a full dose of calomel and comp. colocynth pill will be required two or three times a week; and these doses are sometimes essential to the cure. If the legs, feet, or abdomen become puffy or œdematous, the urine being scanty and turbid, the case will not progress well until the kidneys are roused to vigorous action by full doses of spiritus ætheris nitrosi and acetate of potash largely diluted with water. Young children bear arsenic well, and girls about the age of puberty generally bear and require larger doses than adults of either sex. A child of one year old will require about half the dose proper for an adult. Finally, he recommends freshly prepared Fowler's solution of a light color, as the red lavender, which for some foolish reason is generally mixed with the solution, often becomes stale and nauseous. The best way of measuring the dose is to mix a drachm of Fowler's solution with seven drachms of water, which will give forty minims as the proper dose, representing five minim doses of the original solution; by measuring forty minims each time, the patient has a better chance of getting the right dose, than in the uncertain bulk of *drops* and *spoons*.

RED LINE AROUND THE FUNIS, A SIGN OF RETARDED BIRTH.—Dr. J. B. Bond (*Medical Times and Gazette*) reports the following case of retarded birth: In the year 1849 he was summoned, on March 24th, to see a pregnant lady who felt quite sure she had been pregnant some weeks more than nine months. He found her very large and very clumsy, but without any signs of labor. On May 9th, he was again called. She had, when she sent for him, some slight pains, but these had entirely subsided before he reached her place of residence. On May 16th, between her eleventh and twelfth month, according to her own reckoning, he was again in attendance. The os uteri was dilated, the membranes were ruptured, and a natural presentation existed. After a long and painful labor she was delivered of a very large still-born male child, which had perished during labor. On examination he found, encircling the umbilicus of the child, just where the funis joins it, a bright red ring less than two lines wide. Since 1849 he has observed this red ring in three other cases, in all of which there were good reasons for believing that the children had been retained in utero beyond nine months. Only one of these children was still-born. He believes that this red ring always indicates retardation, and that in such cases it may always be found, if carefully looked for.

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AMERICAN vs. EUROPEAN MEDICAL SCIENCE

SOME time since a well-known reviewer, in a criticism of a work written by an American author, stated that the views which it expressed and the experience it recorded were so opposed to the views and experiences of the European authorities that they could not be accepted.

On reading this review these two queries at once occurred to our mind: In what respect is American medical science inferior to that of Europe? What is the cause of that inferiority?

These questions we propose to answer by a few brief suggestions.

Practitioners of medicine may be divided into three classes—*surgeons*, *nurses*, and *physicians*. The surgeons of America are certainly superior to those of Europe. Cassaignac, the distinguished French surgeon, said to Professors Gross and Pancoast, on their recent visit to Europe: "*You have just reason to be proud of your country. America at this moment wields the surgical sceptre of the world.*"

The reason for this superiority is obvious. Surgery requires mechanical skill. The necessities of our pioneer life in the new world have developed mechanical ingenuity. Therefore, as operative surgeons, as inventors of mechanical appliances, we lead both continents.

As *nurses* we are surely as good as the Europeans. We are all acquainted with practitioners of medicine who have little surgical ability, and no profound or philosophic attainment in science, who have no status in the profession, but who succeed in obtaining large and lucrative practice, and are successful with their cases, and are very popular with their patients.

As *physicians*, we are just as certainly inferior to the Europeans. In the history of our country thus far *three* causes have been operating to depress and degrade the tone of medical science: 1. The same necessities of our pioneer life that have made us skilful mechanics and surgeons have kept us from attaining the standard of scholarship that prevails among the leading scientific men of older countries like England, France, and Germany.

"The physician," says the genial Dr. John Brown in his "Horæ Subsecivæ," is a man of "universal acquirements." A man may be a dexterous surgeon, or a kind and amiable nurse, without even knowing his alphabet, but no one can become a thorough, comprehensive physician without scholarship. Scholarship is the result of liberal culture, patient study, and favorable opportunity superadded to native endowment.

In our country we have, as a rule, been compelled to make thought, philosophy, science, attainment, culture, secondary to food, raiment, shelter, in the perpetual battle for existence.

2. Only a minority of our physicians are liberally or thoroughly educated. In all of our American colleges medicine has ever been, and is now, the most despised of all the professions which liberally-educated men are expected to enter. A few years ago an instructor in a leading American university said to two young graduates who were commencing their labors as medical students: "Don't study medicine; anybody can be a doctor. Study law or theology."

We believe this to be the present sentiment of the American colleges to-day. Physicians themselves are at fault for this; men judge of the profession by its professors. Mediocrity, like the Irish peasantry, is very prolific and self-perpetuating. Ignorant and coarse men in our profession invite ignorance and coarseness, and to that extent repel culture and scholarship. We think we do not exaggerate when we say that, when a young man of superior ability and high scholarship enters the medical profession, the feeling among the majority of his cultivated friends is that he has thrown himself away. Very, very rarely does a young graduate of literary genius and scholastic culture ever think of becoming a physician. The result is that the profession, like the crowd that flocked to David in the cave of Adullam, is made up quite largely of "as many as were discontented, as many as were distressed."

3. The profession in America has been inclined to *discourage* rather than encourage original thought among its own members. There is too much of the spirit displayed in the review above quoted. Until very recently, indeed, the state of feeling in this country has been such that a physician who dared to proclaim facts or theories in advance of the Europeans, has done so not only at the risk of his reputation, but also of his comfort and very existence. This is a strong statement, but it is weaker than the facts that sustain it.

We write in memory of the time when one of the greatest surgical discoverers of the century, whose name all Europe has delighted to honor, was first received here with coldness and despising; when, even in New York, the most progressive of cities, his theories were scouted and his facts were discredited, and all the medical colleges closed their doors against him. We write in memory of the time—but eight years since—when the reviver of the practice of *external version*,

which our leading obstetricians now boast of having performed, was driven into exile to a foreign land, hounded, not only by his own townsmen, but by medical professors from all parts of the country. We write in memory of the time when, in one of our principal medical societies, a well-known member of the profession used the influence of a deserved reputation and the weight of an honored name to prevent the discussion of a department of science that is already growing into transcendent importance both in Europe and America, on the plea that its advocates would thereby be advertised. We write in memory of the time when, on the same plea, the same society remorselessly snubbed a professor in one of our leading colleges, who, in his own department, is an acknowledged authority.

In view of these facts, we hold that the neglect and snubbery that our medical delegates received at the recent International Congress in Paris was no more than was deserved (not by them as individuals), but by a nation that has thus systematically persecuted its own prophets, and stoned those who are sent unto it.

We feel assured, however, that in all these respects we are doing better and better. The standard of the profession is being raised. Better men are entering it; consequently there is more liberality and progress. Most of the leading physicians of Boston and New York do not now require the stamp of Paris, or Vienna, or Berlin, on their medical ideas, provided they are really true and good

If any physician, young or old, in these two cities has any new truths of his own to present, he has himself to blame if he is not well received.

We are not entirely without hope that, in the distant future, even Philadelphia—so glorious in the past of our medical science—may yet rise again to the level of our times, and ceasing to persecute, may learn to love; may give her truly noble leaders in science less reason to express the wish that their lines had fallen in more favorable places, and thus may do something toward regaining the sceptre of medical power which she has so passively allowed to slip from her grasp.

But, however dark the prospect may be, we shall never cease to believe in the coming of a golden age for the profession of America, when our ablest and best-cultured youth shall feel it an honor to enter its ranks; when we shall value most not those who bring us the *freshest importations*, but those who discover the newest truths; when the positions of honor in our hospitals shall be given not to the best politician, but to the best physician; when the distinction between specialists and general practitioners shall be lost in the common love of science; and when the young in the profession shall cease to envy the prestige of the old, and the old shall no longer despise the enthusiasm of the young.

When that golden age arrives, the sceptre of *medicine* as well as of surgery will be borne by America.

—We are happy to announce to our readers that a new journal, to be styled the *Archives of Ophthalmology and Otology*, is shortly to make its appearance. An interesting feature in connection with it is its simultaneous publication in New York and in Carlsruhe, thus giving its contributors the advantage of appealing to a German as well as English audience. The editors are Prof. H. Knapp, M.D., of N. Y., and Prof. S. Moos, M.D., of Heidelberg, both well known in these specialties, and eminently fitted to carry on the work. It is to be open to original articles only, a number of which have been promised from the first ophthalmologists and otologists on this and the other side of the Atlantic, and is to be issued twice in a year. There is, in our opinion, abundant room for such an organ in our medical periodical literature, and if the anticipations of the editors are realized in the way of practical contributions, we doubt not that it will command the success which it deserves.

Reviews and Notices of Books.

CATALOGUE OF MEDICAL PORTRAITS. One Hundred Card Photographs of Distinguished Foreign Physicians, Surgeons and Specialists. By WM. H. HELM, M.D., Sing Sing, N. Y.

DR. HELM, with a spirit of enterprise that is to say the least commendable, has succeeded in collecting card photographs of many of the most celebrated authors and professors in medicine and allied sciences in Germany, France, and England. They are very neatly and handsomely got up, and in every respect reliable portraits. It is useless to speak of the value of such remembrancers of the distinguished in our ranks to such as have previously had an opportunity to enjoy their oral teachings, but they must be equally valuable to others who have learned only to know them by reputation. The subjects are all well and carefully selected, and no pains have evidently been spared in collecting such as would best serve the purpose of a gallery of the truly eminent men. We are informed that the whole set can be obtained for $15.50.

Such a set would be a treasure to any library, and should be procured by every medical man who has a curiosity to sit face to face with the masters of science.

A PRACTICAL TREATISE ON THE DISEASES OF WOMEN. By T. GAILLARD THOMAS, M.D., Professor of Obstetrics and the Diseases of Women and Children in the College of Physicians and Surgeons, New York; Physician to Bellevue Hospital; Consulting Physician to the State Woman's Hospital; late President of the New York Obstetrical Society; Member of the New York Academy of Medicine, of the County Medical Society, etc., etc. With two hundred and twenty-five illustrations. Second Edition revised and improved. Philadelphia: HENRY C. LEA. 1869. 8vo. pp. 632.

No one will be surprised to learn that the valuable, readable, and thoroughly practical book of Professor Thomas, has so soon advanced to a second edition. Although very little time has necessarily been allowed our author for revision and improvement of the work, he has performed it exceedingly well. Aside from the numerous corrections which he has found necessary to make, he has added an admirable chapter on chlorosis, which of itself is worth the cost of the volume.

THE SURGICAL TREATMENT OF THE DISEASES OF INFANCY AND CHILDHOOD. By T. HOLMES, M.A., Cantab., late Surgeon to the Hospital for Sick Children, &c.,—2d Edition. Philadelphia: Lindsay & Blakiston. 1869.

THE second edition of this practical work is now before us. In our previous notice of it we took occasion to suggest the addition of a chapter on the orthopædic surgery of childhood. This addition we are happy to say has been made in the present edition, and the work is now, in our opinion, a complete one of its sort. There are also other additions in accordance with advances that have been made since the book first appeared.

A HISTORY OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA, FROM ITS FOUNDATION IN 1765. With Sketches of the Lives of deceased Professors. BY JOSEPH CARSON, M.D., Professor of Materia Medica and Pharmacy in the University of Pennsylvania; Member of the American Philosophical Society, etc. Philadelphia: Lindsay & Blakiston, 1869. 8vo. cloth, pp. 227.

THIS volume will be gladly welcomed by every alumnus of the old time-honored mother of medicine of America; it should be on the library shelves of every one of them; it was written for them, and they should procure it. Many of them have learned their first lesson in therapeutics from the lips of the genial and pleasant-spoken author, and to such it will be doubly welcome on account of the double attachment to school and teacher. They will open the book. then, with the expectation of "hearing Carson," and they will not be disappointed, for the easy and perspicuous composition will forcibly recall to their memories the unlabored diction of the lecture-room. To those of our readers who are alumni of the institution we would say you should have this book in reverence to your alma mater, that you may know her as she was before your personal introduction; and to all interested in the history of the progress of medical education in this country, we recommend the volume as a concise and accurate account of the rise and progress of this well-known institution.

Prof. Carson commences his narrative with a terse description of the early colonists of our country and the manner in which, for convenience, the professions of medicine and theology were united in the same individual, much the same as at the present day, when so many of our missionaries sent to foreign climes acquaint themselves with at least the principles of the healing art before departing for the field of their religious labors; and we are told on the authority of Dr. Sewell, that the clergy not only practised medicine, but wrote practical works on the diseases of the country, one appearing as early as 1677, from the pen of Thomas Thatcher, a learned clergyman of Boston, entitled "A Brief Guide in the Small-pox and Measles."

The earliest physicians of Wm. Penn's colony were, it appears, regularly educated for the profession, and had attained celebrity as physicians before their emigration. Dr. Thomas Wynne arrived in the *Welcome* in 1682, as did his son-in-law Dr. Edward Jones; Dr. Griffith Owen and others, are mentioned by name; and we are told that while some of these physicians devoted themselves to the practice of the profession, others finding the practice of medicine insufficient, turned their talents to other account in organizing the settlement.

We gather from this account that the City of Brotherly Love was overstocked with doctors from the very first, an unfortunate habit which seems to cling to it even at the present day.

Of course the earliest physicians were emigrants; subsequently they were native-born men, many of whom repaired abroad in quest of professional education. Others, unable to do likewise, had no other training than that received as apprentices in the shops of their preceptors, a training, in many instances, from the like of which medical students of to-day who may read the narrative of Prof. Carson would draw back in dismay. Eventually, however, those who were unable to go abroad themselves received from their more fortunate brethren the results which they had acquired in foreign studies; and in this way medical teaching in America began by Dr. Cadwallader, who had studied anatomy in London under Cheselden, giving demonstrations to the physicians of Philadelphia, when he settled among them. Dr. Wm. Hunter of Scotland, some years later, in 1754, '55, '56, gave lectures upon anatomy. In 1762, Dr. Shippen commenced a course upon anatomy, the introduction to which was delivered in the old State House. The number of students was twelve; and such, quotes our author from Dr. Wistar, "was the origin of our medical school."

In 1765, Dr. Morgan returned from Europe, where for several years he had been diligently engaged in preparing himself for the duties of a medical teacher, and laid before the Board of Trustees of the College of Philadelphia (an institution which had been founded in 1749), a plan for establishing a medical school under their auspices. The scheme was approved, and on May 3d, 1765, Dr. Morgan was unanimously elected Professor of the Theory and Practice of Physic. In the following September, Dr. Shippen was elected Professor of Anatomy and Surgery; and on the 26th of the same month the first formal announcement of the Medical School of the College of Philadelphia was published. In connection with these professorships a course of clinical instruction in the Pennsylvania Hospital was instituted by Dr. Thomas Bond. On the 12th of May, 1767, the board of trustees determined to confer degrees of Bachelor in Physic, and of Doctor in Physic, upon such students as came up to the requirements agreed upon. In January, 1768, Dr. Adam Kuhn, just returned from Europe, was added to the faculty, as Professor of Materia Medica and Botany; and in July, 1769, Dr. Benjamin Rush was made Professor of Chemistry.

In June, 1768, the first commencement was held, and the degree of Bachelor of Medicine conferred, upon how many candidates is not apparent; in June, 1769, a similar degree was conferred on eight candidates; and in June, 1771, the degree of Bachelor of Physic was conferred on seven candidates, and the degree of Doctor of Medicine was conferred upon Jonathan Potts, James Tilton, Nicholas Way, and Jonathan Elmer, four gentlemen who had received the primary degree in 1768. These were the first doctors made in Philadelphia, but a doctor had been made the year before in New York by King's College, and the degree of Bachelor of Medicine had been conferred in 1769 by the same institution. So Philadelphia is entitled to the honor of having created the earliest medical graduates, though only Bachelors in Medicine; while New York can claim the honor of having conferred the first degree of Doctor of Medicine.

The Revolution interrupted the labors of the College; the lectures were suspended, and subsequently the charter was abrogated, and a new school established under the style and title, "University of Pennsylvania." This occurred in 1779. The Professors of the old College were offered chairs in the new institution, but Dr. Shippen was the only one who consented to accept the position, and a different faculty was organized. In 1789, the friends of the College succeeded in securing a repeal of the act of abrogation, and the old Medical School was reorganized. Finally an amicable adjust-

ment was brought about by the rival institutions, and they were united Sept. 30, 1791, by act of Legislature, under the name of THE UNIVERSITY OF PENNSYLVANIA, and the faculty consisted of the following gentlemen and professorships:—

Anatomy, Surgery and Midwifery, Wm. Shippen, M.D.; Caspar Wistar, M.D., Adjunct; Theory and Practice of Medicine, Adam Kuhn, M.D.; Institutes of Medicine and Clinical Medicine, Benjamin Rush, M.D.; Chemistry, James Hutchinson, M.D.; Materia Medica and Pharmacy, Samuel P. Griffiths, M.D.; Botany and Natural History, Benjamin Smith Barton, M.D.

With this we may conclude our outline of Dr. Carson's history of the establishment of the University. Our author continues his history, narrating all the interesting changes that occurred, and giving us brief sketches of the lives of the deceased professors. Many interesting collateral details appear incidentally, relative to the early history of the Pennsylvania and other hospitals, the American Philosophical, and other societies, founded and fostered in great measure by medical men; but for all these very important points we must refer the reader to the volume itself. In conclusion, we have to thank Prof. Carson for the pleasure personally experienced in perusing his valuable volume, and we doubt not that all interested will appreciate it likewise.

The paper, typography, and binding, in which the publishers of this volume excel, are well worthy of the subject-matter.

PRACTICAL OBSERVATIONS ON THE OSTEOLOGY, PATHOLOGY, DIAGNOSIS, AND TREATMENT OF ANAL FISSURE, by WILLIAM BODENHAMER, A.M., M.D., Professor of the Diseases, Injuries, and Malformations of the Rectum, Anus, and Genito-urinary Organs. New York: W. Wood & Co.

IN this book of 148 pages we find a complete resumé of the subject of Fissure of the Anus, its Anatomy, Physiology, Symptomatology, and Treatment. The author quotes the opinions of different authors upon the various points discussed, referring in an extensive bibliographical section to the original sources of his information.

His own views are nevertheless expressed with independence and clearness, and his principal points of difference are defended and supported with apparent candor, and in a fair logical manner. The style of the author is rather pointed and forcible, of the two calculated perhaps to impress more than to convince. The method is good and the arrangement of the book convenient.

The existence of spasmodic contraction as "an entity" is disputed. In cases supposed to be of this nature the author thinks its cause is always due to a fissure or ulcer undetected.

A fissure of the anus is described as a superficial breach of the surface in the anal region, of a highly sensitive, irritable, or painful character, of whatever shape. The various theories advanced in explanation of the interval between evacuation and the characteristic accession of pain in fistula, are ably discussed. That of Dr. Van Buren seems to be fairly refuted, though the author frankly confesses his own incompetence to substitute one satisfactory to himself. Objection is made to the treatment of fissure by Boyer's method, viz. the complete division of the sphincter, as also to the method first recommended and practised by Nelaton, by forcible dilatation and rupture with the thumbs.

The author's treatment consists mainly of topical use of nitrate of silver combined with dilatation without rupture of the sphincter, with the addition sometimes of scarification and incision of the mucous membrane. The objects sought are to change the character of the ulcer to a simple sore, and to secure rest so that it may heal without disturbance. It is alleged that this treatment, though apparently only palliative, is sufficient to induce a complete and satisfactory cure in the large majority of cases; in proof of which twenty-nine cases with their histories are appended. This book is a credit to its author. It is a clear, succinct, and complete summary on the question up to the present date.

CLINICAL LECTURES ON DISEASES OF THE URINARY ORGANS. By SIR HENRY THOMPSON, Professor of Clinical Surgery, and Surgeon to University College Hospital. With illustrations. Philadelphia: Henry C. Lea. 1869. Crown 8vo., pp. 204.

SINCE Civiale's death, Sir Henry Thompson is confessedly regarded as the first living authority upon the surgical diseases of the genito-urinary organs. Any opinion emanating from such a source upon the subjects to which he has devoted his life merits careful and respectful attention.

The attractive little work before us is a republication from the *Lancet* of a course of clinical lectures to the students of University College, London, and contains the latest expression of Sir Henry Thompson's views. To say that the book is replete with practical suggestions and original observations were faint praise, for almost every page exhibits evidence of independent thought, as rare as it is welcome. The volume consists of twelve lectures, classified as follows:—I. *Introductory Diagnosis.* II. and III. *Stricture of the Urethra.* IV. *Prostatic Hypertrophy and its Consequences.* V. *Retention of Urine.* VI. *Extravasation of Urine and Urinary Fistula.* VII. *Stone in the Bladder.* VIII. *Lithotrity.* IX. *Lithotomy.* X. *Cystitis and Prostatitis.* XI. *Diseases of the Bladder: Paralysis, Atony, Juvenile Incontinence, Tumors.* XII. *Hæmaturia and Renal Calculus.*

This very thorough division of the subject is well-nigh exhaustive (for the discussion of foreign bodies in the bladder and urethra is properly a collateral study); the treatment of each division is fully so. For the solution of the vast majority of cases of urinary disease, the author relies upon ascertaining—first, the frequency of passing water; second, the existence of pain *before, during,* or *after* micturition; third, the alteration in the appearance of the urine; fourth, the urethral discharge of blood. These four points of inquiry, followed out to their legitimate conclusions, form the elements of diagnosis in all urinary diseases. A juster estimate of the value of the endoscope, as a diagnostic aid, than its enthusiastic advocates will admit, is expressed in the conclusion that if a man has a good and tolerably practised hand, "with a fair share of intelligence," he will not be likely to gain much from the endoscope; and if he has not, it will be of no use at all. Of the various forms of the instrument in use Crinise's and Warwick's are preferred.

Of the following chapters, those on stone in the bladder and its treatment, especially the lecture on lithotrity, are the most important; many of the essential minutiæ which contribute to successful results being more fully specified than in the author's well-known work on "Practical Lithotomy and Lithotrity." Lithotrity for all small stones in adults, and lithotomy (lateral incision by preference) in children, and for all large stones, is a summary of the author's advice; but as all calculi should be detected at an early date, lithotrity is destined, in Sir Henry Thompson's opinion, to supplant lithotomy in the adult, and gradually to confine the latter procedure to rare and exceptional cases. A consummation devoutly to be wished, but, we fear, not likely soon to be realized in this country. In

the treatment of *cystitis*, the use of small injections, either simple or acidulated, and of the infusion of triticum repens, is highly lauded. A brief discussion of juvenile incontinence, atony, and tumors of the bladder, is followed by a lucid exposition of the causes and treatment of hæmaturia; and the consideration of the pathology and treatment of renal calculus concludes the volume, which will be closed with regret by the appreciative student. Clear, terse, independent in thought and manly in expression, these lectures betray the hand of a master of his art. The volume is creditably issued by the Philadelphia publisher, and a few typographical errors are more than counterbalanced by the general accuracy and attractive make-up of the book.

The pathology of *stricture* is fully discussed; the existence of *spasmodic stricture*, which is stamped as simply "a refuge for incompetence," being ignored. In the treatment of stricture the author's experience has led him to discard metallic in behalf of flexible bougies, in opposition to his former teachings and to the views still held in this country. Of the various methods of treatment, dilatation is not only placed first, but, in the author's opinion, should, when properly conducted, obviate the necessity of much of the external urethrotomy now resorted to. The consequences of hypertrophy of the prostate are thoroughly considered, and the value of vulcanized India-rubber catheters pointed out. In treating retention arising from this cause, the author's rule is to draw off only half the vesical contents at first, and by *gradually* emptying the distended bladder, to avoid the risks of subsequent atony.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, APRIL 14, 1869.

DR. L. A. SAYRE, President, in the Chair.

FATTY LIVER, ATHEROMA OF AORTA, TUMOR OF FALLOPIAN TUBES, &C.

DR. FINNELL exhibited several specimens. The first series was removed from a prostitute 45 years of age, who for the last three months of her life had been in a constant state of intoxication. She died rather suddenly. At the autopsy a fatty liver, weighing five pounds, was found, which was a beautiful specimen of its sort. The upper portion of the organ was globular, as is usual with tight lacers. The heart was hypertrophied, and the arch of the aorta atheromatous. The uterus contained in its cavity, and in the substance of its walls, several small fibrous tumors, while one of the fimbriated extremities of the fallopian tubes was expanded into a sac of the capacity of a hen's egg.

A RING-SHAPED POLYPUS.

A second specimen consisted of a small uterine polypus removed from a maiden lady 30 years of age. It had a peculiar ring shape at its extremity.

GRANULAR KIDNEYS, &C.

A third specimen consisted of a fine pair of granular kidneys removed from a convict who died of traumatic peritonitis, the result of a gunshot wound received while attempting to escape. For a few days previous to death the patient presented a bronzed hue of skin, and Dr. Finnell thought that he might find some explanation for it in the condition of the supra-renal capsules, but failed in even finding them.

CEREBRAL SOFTENING.

A fourth specimen was a portion of brain taken from a man 40 years of age, who, while lodging at a station-house, was seized with convulsions, and shortly after died. The lower surfaces of the cerebellum, and the posterior and lower surfaces of the cerebrum, were the seats of marked softening. The membranes in the neighborhood were strongly adherent.

DISORGANIZED KIDNEYS, URINARY AND BILIARY CALCULI.

A fifth specimen was a pair of thoroughly disorganized kidneys taken from the body of a miser who died suddenly at the age of 70. He had lived entirely by himself, and subsisted on very little food. At the autopsy the kidneys were found almost worm-eaten, the pelves being loaded with fat. Each calix of the organs contained a small calculus. His gall-bladder was occupied by a large sized oblong-shaped biliary calculus. At the time of death the man was wearing three under-shirts, two muslin shirts, two vests, three coats, two pairs of pants, and three pairs of drawers.

DIPHTHERIA.

The last two specimens, making the sixth and seventh, he presented on behalf of Dr. John Beach. Both were examples of diphtheria. One was removed from the body of a male immigrant 3½ years old, who was seized with throat symptoms while the ship was coming up the bay. He died on the fourth day after landing. At the autopsy it was evident that the whole force of the disease had spent itself upon the larynx and trachea.

The other case was taken from a female 4½ years of age. The deposit was likewise thick and extensive, but was also confined to the throat and its immediate vicinity.

LONG CONFINEMENT OF NEEDLE IN PALM OF HAND.

DR. MASON exhibited the prepared hand of a dissecting-room subject. Upon the metacarpal bone of the index finger, and parallel with its long axis, was discovered a pin or needle with its point exactly opposite the metacarpo-phalangeal articulation. There were no evidences of the hand having been crippled during life, while the appearances seemed to indicate that the foreign body had rested in that locality for a considerable time.

DR. SAYRE remarked that the probable reason why the foreign body did no harm in that particular locality was that it was parallel with the tendons. He then related the following case in point: A noted pugilist called on him to have an operation performed for the relief of an inability to approximate the metacarpal bones of the thumb and index-finger of the right hand. On examination a foreign substance was detected in that locality, which was supposed to be an exostotic growth. He cut down upon the part for the purpose of removing it, and came upon a portion of the bottom of a tumbler, triangular in shape, an inch and a half in length in one direction, three quarters of an inch in another, and about half an inch in thickness. The patient was, of course, unaware of its presence at the time, but succeeded after a while in recollecting that fourteen years before, while in a drunken brawl, he had smashed a tumbler upon a counter, that it had broken, and the portion had insinuated itself into his palm.

A FUNIS TIED IN A KNOT AND CHILD BORN ALIVE.

DR. NOLAN presented a portion of a funis, which was twenty-four inches long, tied in quite a firm knot. The mother was not preternaturally large, and the child was born alive.

DR. JACOBI thought, from the appearances presented, that the cord had become tied late in gestation.

DR. ROGERS was of the opinion, inasmuch as some

evidences of adhesion were present, that a little time at least had elapsed before delivery.

CONGENITAL FUSICELLAR SARCOMA OF TONGUE.

Dr. Jacobi presented a tumor of the tongue removed by operation from a male child about twelve weeks old. The baby was born on the 4th of January, 1869. On the day after her confinement, or the very same day, the mother noticed a tumor a little behind the tip of the tongue, and a little to the left of the median line. It was of the same color as the tongue, was hard, could be felt above and below the organ, and gave the impression of being solid and entirely spherical. A physician in the neighborhood was called in, who stated that it was not necessary to do anything at that time, evidently, as he remarked afterwards, not being able to make a diagnosis. He, however, told them to be careful to let him know if the growth increased. It was then of the size of a small hazel nut. A few weeks ago, there being no change, the babe was left with the same advice. At that time it could nurse tolerably well. About the first of March, the child being then nearly two months old, was taken to a public institution and was there examined, an exploring trocar being introduced in order to determine the nature of the tumor. The mother reported that nothing was found but a little blood. About a week afterwards the child was seen by the same gentleman, and was sent away with the advice to have nothing done for it while it was so young. Dr. Hadden, who had seen the child first, about this time saw it again. He found that the tumor had grown in size (being as large as a hickory nut), had turned quite red over part of its surface, and then advised them to let Dr. Jacobi see the patient. Dr. Hadden called on the doctor with it and the mother on the 23d of March. It was then a tumor the size of a walnut. It extended from the left margin of the tongue over the median line to the right side, occupying the whole tissue of the organ, was nearly spherical, with the exception that the anterior and posterior portions were separated from each other by a superficial groove. The upper aspect of the tumor was spherical, and was red, with the exception of its central portion, which had ulcerated. The mass protruded from between the gums. The child had been unable for some time to nurse, and it was with great difficulty that deglutition could be carried on when it was fed artificially. As the tumor had grown very rapidly, and it was reasonably expected that it would continue to do so, its removal by operation was determined on.

The mass was accordingly removed the next day at the office of Dr. Jacobi, in the presence of Drs. Mason, Hadden, Krackowizer, Sands, and a number of others. Dr. Jacobi operated with the galvano-cautery. The wire was applied around the whole tumor. Fortunately the tumor did not reach far behind the attachment of the frænum, and the genio-hyoglossus muscle was left. The tongue was allowed to go into the mouth and the tumor was removed while the organ was in that situation, the gums and lips being protected with wet rags. The operation succeeded, and the child eventually recovered, the wound granulating nicely and enabling it to nurse as well as before.

After its removal the tumor was placed in Miller's solution (bichromate of potash, sulphate of soda and water). It had been examined while in the flesh condition by Drs. Knapp, Simrock and Jacobi. On laying it open a cyst was discovered in its substance, the contents of which escaped before an opportunity was given for its examination.

The microscopical appearances were as follows: The outer portion consisted of muscular tissue, of intercellular connective tissue, a number of spindle-shaped cells, mostly with one nucleus, and a few nucleoli. The inner portion was formed almost exclusively of spindle-shaped cells and some round cells, all of the same size and in the same condition. These were intermixed with capillaries which were least abundant in the central portion, and, with connective tissue, most abundant in the middle. In the opinion of Dr. Jacobi the tumor ranked among those termed by Virchow fusicellular sarcomatous.

He stated in conclusion that he had searched the literature of the subject very faithfully, and had failed to find a single case of congenital malignant tumor of the tongue on record. He was accordingly inclined to report this as the first of its sort.

Dr. Rogers remarked that the case related by Dr. Jacobi must have been the same one that presented itself to the Demilt Dispensary. The puncture had, however, been made at that time.

Dr. Jacobi stated that the mother had taken the child to that institution.

The specimen being such a rare one, it was, after a little discussion, referred to the Microscopical Committee for an elaborate report.

Dr. Cutter reported his case of encephaloid disease of foot, for which amputation had been performed, entirely well.

The Society then went into executive session.

STATED MEETING, APRIL 21, 1869.

Dr. L. A. Sayre, President, in the Chair.

SERIOUS HEART DISEASE WITHOUT SYMPTOMS.

Dr. Finnell exhibited a heart taken from a man 70 years of age. He had been suffering for many years past with rheumatism, and some ten years ago was attacked with hemiplegia, from which he never recovered. The last two years of his life he became very intemperate. He died suddenly. The aortic valves were filled with calcareous matter. Along the free and attached ends of the semilunar valves were large plates of bony material. The mitral valves were in the same condition. Strange to say, during the whole of his life the man had never complained of any heart symptoms.

POISONING BY CYANIDE OF POTASSIUM.

A second specimen consisted of a stomach, presented on behalf of Dr. Shine, removed from a man aged 35, who was supposed to have committed suicide with cyanide of potassium. He had attempted suicide by cutting his throat, some two years ago, but this time he resolved to resort to a surer method. On making the autopsy, the right side of the heart was found distended with dark blood; the left side was empty and contracted. On opening the body the odor of prussic acid was distinctly perceptible. The stomach was very beautifully and evenly injected.

MALFORMATION OF HEART, &c.

A third specimen, from Dr. Cushman, was the heart of an intemperate druggist, 50 years of age, who was supposed to have committed suicide by morphine. The chordæ tendineæ were found attached to but one of the columnæ carneæ. The liver showed a very well marked puckered appearance, as if it had been at one time the seat of an abscess. The stomach did not show that intense redness usually seen in "rum stomachs," neither was any marked thickening present. The appendix vermiformis was found filled with several small seeds, and yet there was no disturbance seemingly occasioned by their presence. The head was not examined.

ANEURISM OF AORTA.

A fourth specimen was an aneurism of the arch of the aorta, removed from a colored man 50 years of age, who was found dead in a cell. The interesting point was its bursting into the pericardium, although the bulk of the sac was external.

CEREBRAL TUMOR.

A fifth specimen was a cerebral tumor, the size of an orange, removed from a man 45 years of age. It apparently sprang from the anterior portion of the corpus callosum. The surfaces of the cerebrum, with which it came in contact, were much softened, and presented a worm-eaten appearance. The patient (a negro) from whom it was removed had applied for lodging in a station-house, and was found dead in the morning. No other history of the case had been obtainable.

OVARIAN CYST—THE CLOSURE OF THE WOUND WITH COLLODION.

Dr. Howard presented a multilocular ovarian cyst removed from a patient of the Long Island College Hospital on Monday. She was single, aged 35, and was admitted on the 30th of March. Up to four and a half months ago she was in her usual good health, when one rainy day she got her feet wet, and three days after, for the first time, experienced a dull pain in the right iliac region, simultaneously with which, and in the same locality, appeared a swelling. The pain continued, and the swelling increased until her admission. Her pulse was then about 100, her complexion was earthen in color, her appetite was exceedingly poor, and on account of the size of the tumor she was unable to sleep well. Her respiration was so bad that she was almost unable to breathe when lying down. Her urine was normal. On physical examination all the usual signs of advanced ovarian disease were found.

On the 9th of April a consultation was held, the result of which was a desire to have paracentesis abdominis performed. This was accordingly done. No fluid whatever appeared through the canula, but, on pressure at either side, a jelly-like mass protruded about the size of a walnut, but so thick and tenacious as to hang at the mouth of the tube. The canula was instantly withdrawn, the wound brought together with sutures, and the whole coated over with collodion.

On the 11th of April another consultation was held, at which time it was determined by a very close vote, in consequence of the very bad general condition of the patient, that an operation should be performed for the removal of the tumor. She was then placed under appropriate tonic treatment, and at the time previously mentioned the operation was undertaken. The day previous her pulse was 108, she had no appetite and could not sleep; indeed she had arrived at that state when she was anxious to take any risk in the hope of relief.

The operation was performed in the presence of Drs. Hamilton, Ford, Cutter, Mason, and others. It was commenced by making a *long* incision, inasmuch as it was clear that the sac, from its contents, was multilocular, and that being such, a large incision was necessary in order that it should be removed entire. It extended from an inch and a half above the umbilicus to within two inches of the pubes. The incision into the peritoneum was midway between the umbilicus and crest of the pubes, and three inches in length. On coming down to the peritoneum and making a slight opening into it, for the purpose of introducing the trocar, a gush of peritoneal fluid occurred, followed by a very extensive discharge of a substance resembling that through the canula, with the exception that it was dark and grumous, having flakes of lymph in it mixed with a considerable amount of pus. This was evidently the result of peritonitis, occasioned doubtless by the sudden closure of the puncture at the time of tapping. As the incision was extended, this substance began to pour out quite extensively. It was scooped out as much as possible with the hands and with large warm sponges. Wells' trocar was afterwards introduced into the tumor, but was found to be useless, and the scissors were used subsequently to break up the contents. On passing the hand around the tumor numerous adhesions were found to exist, especially with the under surface of the liver. The walls of the cyst proper were very thin, and at some points seemed actually to have burst into the peritoneal cavity. The peritoneal cavity was afterwards carefully sponged out, the edges of the wound were brought together with silver wire sutures, half an inch apart, and the pedicle was treated by Wells' clamp, brought through the wound and secured by sutures.

After the wound was closed, the edges of the lips were varnished with successive coatings of collodion, after which some cotton was frayed out and a considerable quantity placed over the abdomen, and the whole secured by strips of adhesive plaster. The tumor and contents weighed forty pounds. There was a good deal of discoloration throughout the contents of the cyst, which had given rise to the suspicion of its being colloidal in character. No microscopic examination had, however, been made of it. The patient at last accounts was doing tolerably well.

On motion, the specimen was referred to the Committee on Microscopy.

Dr. Cutter thought that the large incision advised by Dr. Howard gave such patients a much better chance than if a small one were first made and subsequently enlarged. He did not, however, approve of the application of collodion, as recommended by Dr. Howard, as it was too apt to confine any discharges that might take place as the result of suppuration of some of the sutures. He believed that a much better way was to bring the edges of the wound well together, taking up large folds of integument and peritoneum, and placing the sutures pretty close together. The chances for union by first intention were much better than by any other method.

Dr. Howard stated that it was his intention to apply the collodion only to those parts above the pedicle, thus giving a chance for free drainage.

FIBRO-PLASTIC TUMOR OF ARM.

Dr. Sayre exhibited a plaster cast of an arm with a tumor situated on its front aspect. The growth was removed the day previous, and was presented with the cast. It measured, over the arm, fourteen inches in its largest circumference. The patient was thirty years of age, a stevedore by occupation, upon whom Dr. Sayre had operated for a tumor in the same locality two years before. The cicatrix of the previous operation traversed the second tumor, and had become, by its growth, a good deal stretched. The first tumor was the result of a severe strain while lifting a heavy weight; the second came without any assignable cause. Before the removal of the second tumor its feel so much resembled that of a lipoma, that Dr. Sayre and several others were surprised to find that it was a fibrous sarcoma.

On motion, it was referred to the Committee on Microscopy.

HYDROCEPHALIC MONSTER, WITH MALIGNANT DISEASE OF JAW.

Dr. Blumenthal presented an hydrocephalic fœtus

of six and a half months, which he had removed from a lady nine months after having delivered her of a healthy child. He made an unsuccessful attempt to delay the labor, but was finally compelled to rupture the membranes and allow the process to go on. There was considerable difficulty in making out the presentation. The head was delivered entire, being pressed into a cylindrical shape during its passage. The child was of course dead when born. An immense amount of amniotic fluid was discharged before and after delivery. The point of peculiar interest centres in an extensive tumor which involved the whole of the lower jaw and under surface of the tongue, some portion of it projecting through the oral cavity in the form of grape-like processes. One of these was very highly colored. No examination of the tumor had been made by the microscope, but the suspicion was that it was of a malignant character. Dr. B. promised to make a full report in future.

The Society then went into executive session.

Correspondence.

CARBOLIC ACID.

To the Editor of the Medical Record.

Sir—Allow me, through your paper, to make a few remarks upon this valuable remedy, carbolic acid. I shall try to be as concise as possible. I shall not undertake to make a history of this medicament, however important it may be; nor shall I speak here either of its chemical or physiological properties. It would lead us too far, and take too much room in your journal.

I have used and experimented upon this medicament very extensively for over three years, and will make here a few practical remarks only on its therapeutic effects.

An important point is to always prescribe a solution made of the crystals. By this means you always know what proportion of the acid you get; as there are so many patent-like solutions sold, with labels indicating its uses, but not telling in what proportion the acid is mixed. Five per cent. of carbolic acid in water makes a saturated solution; it coagulates albumen, and is a violent poison for vegetables or inferior animals. A solution at 1 or 2 per cent. is sufficiently strong for any external application or dressing, and is a powerful disinfectant, and none can be better to stop gangrene.

I have used it lately in a case of a large open cancer of the jaw and neck, which when I first saw it was an enormous mass of gangrene, and had run a course of only ten or twelve days. Cauterization with nitrate of silver or nitrate of mercury, and applications of chloride of lime, zinc, or sodium combined, had been of no effect. Cauterization with the saturated solution was then made, and a dressing with the solution at two per cent. applied by means of lint. The offensive odor of the sore vanished in a few moments, and at the end of twelve days the whole gangrene had entirely disappeared, leaving a healthy, rosy-looking sore, with fine granulations, and a light-yellow pus, which, seen through the microscope, looked quite homogeneous.

In four cases of gangrene of the mouth, where I used the caustic, and thereafter the solution at 2 per cent. as a gargle, the treatment lasted four days in two cases and five in the two others, and a perfect cure was obtained.

In *whooping-cough* it is, so far as my experience goes, very efficacious. I have employed it in five cases in the following manner:—I gave, three times a day, about one drachm of the solution, at one per cent., by means of the pulverizer, and spread some drops of the pure acid on the pillows and bed-clothes of my little patients. The first time I used it in this way I was really astonished at the result. The patient was a boy six years old, who had the cough for ten days; and the day previous to the administration of the remedy had eighteen paroxysms. The day following he had only ten; on the third day, seven; on the fourth day, five. Finally, following the treatment ten days, the boy was cured. The same result was obtained with the four others in less than twelve days.

In many cases of itch, porrigo decalvans, psoriasis diffusa, lepra vulgaris, etc., it has proved very efficacious. It has failed in one case of ichthyosis, but I must say that in that instance the treatment was only followed five days, and the acid was mixed with lard instead of water. It is necessary to remark here that when the acid is mixed either with lard, sweet oil, or even glycerine, it must be in a larger proportion, fatty substances having the effect of diminishing its effects to a great extent.

It has a decided action on the spores of the *syringospora Robinii*, as I have experienced, principally on children in cases of aphtha or thrush. In those cases I have used the solution at one per cent., applied by means of a camel-hair brush.

I have tried it in ten cases of intermittent fever, but with no effect; though I think it ought to be used again, as it kills infusoria almost instantly.*

A solution of one per cent., used as an injection three times a day, and a tablespoonful of the same twice a day internally, proved very successful in many cases of gonorrhœa.

It has been very useful in severe cases of necrosis, stopping in a short time disorganization, smell, and suppuration. It is absorbed very readily through the system; and if any cases of poisoning have occurred by its absorption, it cannot be due to the quantity absorbed, but to the strength of the solution used. I have already used over *five pounds* of the pure phenol in solution, in dressing an open cancer sore on the same patient, and found it in his urine every time I tested it; this patient, notwithstanding, has experienced no ill effects from it upon his general health.

In dysentery a solution of one-half per cent. in injection after each evacuation made a cure in a few days.

Carbolic acid is indicated in all pyogenic, parasitic, or infectious diseases. None is better as a disinfectant. For this purpose, the solution at one or half per cent. is more than sufficient.

As a caustic, pure, it is to be used wherever a superficial cauterization is needed, but in this case, however, must not be used on too large a surface at once.

To destroy the unpleasant odor which remains on the hands after its use, the oil of lemon diluted in alcohol is very efficacious.

P. De Marmon, M.D.

Kingsbridge, N. Y.

A Large Prize to Inventors.—The Brazilian Government has offered a reward of $8,000 in gold to the inventor of any practical mode of preserving beef for exportation. More than four hundred experiments have been made, but none have succeeded.

* Since the above was written I have read in the *Gazette Hebdomadaire*, a note of Mr. Calvert, relating that Drs. Barrant and Jessien, of Meurice, have treated successfully twenty-seven cases of intermittent fever, with one grain of the pure acid given three times a day, dissolved in one ounce of water, with an addition of a little brandy. I am sorry to say that I could not obtain the same result in Westchester county.

New Instruments.

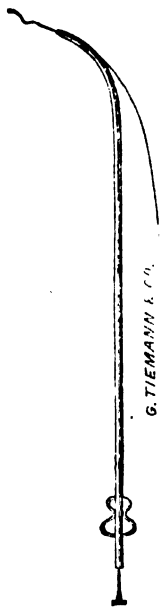
A NEW CATHETER FOR USE IN RETENTION OF URINE,

ARISING FROM STRICTURE OF THE URETHRA.

By J. W. S. GOULEY, M.D.,

PROF. CLINICAL SURGERY IN THE UNIVERSITY OF NEW YORK, AND SURGEON TO BELLEVUE HOSPITAL, NEW YORK.

The annexed figure represents, in reduced proportions, the instrument and a portion of the guide passed through the canal at its point.



The catheter is three millimetres in diameter, nearly corresponding to No. 3 of the English scale, and is conical, its point being two millimetres in diameter, about equal to No. 1 of the same scale. A groove on its convex side extends a distance of four inches, and is bridged over in its last twelfth of an inch, so as to form a canal for the reception of a delicate whalebone guide. The catheter eye is on the concave side of the instrument, about three-fourths of an inch from its point, and is kept closed by a well fitted stylet. Its curve is equal to one-fifth of the circumference of a circle three inches and a quarter in diameter.

The manner of using the instrument is as follows:—With a small syringe, the urethra is to be filled with olive oil, and an attempt made to introduce a probe-pointed whalebone guide, half a millimetre in diameter, and of the length of an ordinary bougie, the point of which may be made temporarily spiral by immersion in boiling water, then twisting around a small staff, and suddenly cooling it. If its point becomes engaged in a lacuna, it is to be withdrawn a little, and carried onward with a rotary movement. If it enters a false passage it is to be retained *in situ* by the left hand, while another is passed by its side. If this second guide makes its way into the false passage, it is to be treated precisely as was the first, and the operation repeated till one guide can be made to pass the obstruction and enter the bladder. Sometimes five or six guides are thus caught before the false passage is filled up, and the natural route opened. As soon as the bladder is entered by a guide—which is known by the instrument being easily moved in and out—the other guides are to be withdrawn, the free end of the retained guide passed through the canal at the end of the catheter, and this instrument carried down the urethra along the guide, until its point reaches the stricture. Generally, with very slight pressure in the right direction, the catheter may be made to enter the stricture and finally pass into the bladder. The guide may be kept in position after the withdrawal of the catheter, and dilatation carried on by the successive introduction of larger sized catheters of similar construction; or divulsion may be resorted to by means of Mr. Hall's or Sir Henry Thompson's instrument, modified by means of the terminal canal for the passage of the guide; or internal urethrotomy may be practised with any of the various urethrotomes, having only this simple modification; or, as has already on several occasions been done, the retention catheter may be made available in external urethrotomy, instead of Mr. Syme's staff.

A MODIFICATION OF SIR JAMES Y. SIMPSON'S UTERINE SOUND.

By ALEX. J. F. SKENE, M.D.

BROOKLYN, N. Y.

In the practice of uterine surgery there is no instrument so frequently used as Simpson's sound. For bringing the os into the field of vision in speculum examinations, for exploring the cavity of the uterus, and measuring its size, it answers every requirement. It has also been used for adjusting displacements, but alone it does not answer this purpose fully, although but little inferior, if any, to some of the more complicated instruments used for that purpose. Having to use this instrument daily in a large hospital practice, I found that explorations made with the sound in the way recommended by surgeons was attended by some inconveniences. We are told by them to place the patient in a horizontal position on the back or side, introduce the index finger into the vagina, and by it guide the sound into the uterus, and in that way explore the cavity or measure its size. Now, this is difficult sometimes, as the os cannot be easily reached at all times nor the sound be introduced with facility in this way. On this account I have for some time preferred to use the sound through the speculum, finding that I could do so much more conveniently, and that in the vast majority of cases I could make all necessary examinations with the sound in that way. But there was an obstacle to measuring the size of the uterine cavity by this method of exploration.

The sound introduced through the speculum is so situated that the figures cannot be seen, hence you cannot tell the depth of its entrance. This difficulty was readily overcome by the addition to the instrument of a tube which could be slipped along the sound to any point.

I also found the uterine adjusters commonly in use rather complicated, expensive, and difficult to keep clean. What I required for practical purposes was a simple sound or probe, which could be easily bent to any curve, with adaptable parts which would answer for measuring the uterine cavity through the speculum and reducing displacements.

The following will give an idea of the instrument, which is quite simple, and which I have found to fulfil all the requirements of exploring probe, uterometer, and adjuster:

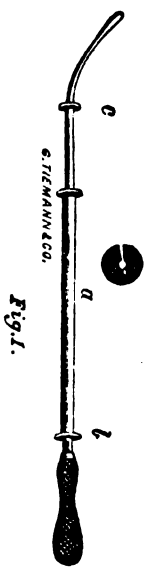


Fig. 1.

Figure 1 is a quarter-sized representation of the instrument complete. It consists of the well-known sound of Simpson, made of soft copper and plated with silver. It is round and tapering for about three inches from the point, which terminates in a bulb as seen in the figure. The only difference between it and Simpson's is that his has an elevation about two and a half inches from the end on the posterior or convex side of the curved portion, which this has not. For measuring the cavity of the uterus it is furnished with a slide (a) about six inches long, made of a piece of common gum-elastic catheter, of a size sufficiently large to slip easily over the sound, and having a hard rubber ring (b, b,) at each end. When the size of the uterine cavity is to be measured, this is put on to the

sound and slipped along up to the handle. The sound is then introduced to the fundus uteri and the slide pushed by the thumb up to the neck of the uterus, and held there while the sound is withdrawn; in that way the depth of the cavity is obtained.

A hard rubber, cup-shaped ring (c,c), having a radiating slit, is made to slip on to the tapering end of the sound, and by its own elasticity it remains firmly fixed at any point where it may be placed. This is used to guard the sound from reaching the fundus of the uterus when the instrument is used for restoring displacements; it also serves to bring the pressure made in elevating the uterus to bear on the neck of the organ, thereby obviating the danger of contusing the walls of its cavity with the point of the sound.

In cases of deformity, such as flexion, a smaller sized sound is sometimes necessary for exploration; indeed, some surgeons prefer for all investigations a sound about the size of the ordinary silver probe. The slide can be readily adapted to this size, but it is useless, of course, for adjusting.

The advantages of making examinations with the sound through the speculum are, that the vaginal walls being kept out of the way, the sound can be guided into the uterus with less danger of contusing its walls. When using the sound without the speculum we sometimes meet resistance from the instrument impinging on the vaginal walls as well as on those of the uterus, and being unable to tell where the most resistance comes we may do injury. The largest portion of the sound being held in a fixed position by the concentral pressure of the vaginal walls, the curved portion or point which enters the cavity of the uterus must follow an unaccommodating course, and if the curve of the sound does not exactly correspond to the angle which the vagina and uterus bear to each other the walls of the uterine cavity must, in many cases, suffer less or more contusion. With the speculum, this danger is avoided. The point of the sound is easily guided into the cavity when the handle is left at perfect liberty to move in any direction necessary to suit the location of the uterus. We can also see the direction which the sound takes when it is introduced through the speculum, and if any displacement exists it can be detected. The diagnosis is usually made by the touch, but I find great advantage in afterwards using the sound while making a speculum examination. I can in that way corroborate or correct the information obtained by a digital exploration.

The principal forms of displacement which require instrumental means for their restoration are prolapsus and retroversion, and in the treatment of such I have found this instrument quite efficient.

In replacing a prolapsed uterus, my mode of using the sound is first to introduce it and obtain the depth of the cavity—which is usually done while making a diagnosis. The ring or button is then adjusted at such a distance from the point of the sound as will insure its not coming in contact with the fundus uteri; it is then introduced and the uterus carried up to its normal position.

It is usually necessary to push back the perineum with the finger or duck-bill speculum, to admit of sufficient depression of the handle of the sound to bring the uterus into the axis of the superior pelvic strait.

The pressure being wholly made on the extremity of the neck, and the portion of the sound in the uterus merely acting to steady that organ, there is little danger of doing injury or causing pain if the manipulations are made with ordinary care. Indeed, I believe that a prolapsed uterus can be restored more quickly and with less trouble to the patient than by any other method. The only objection which I know of having been made to this operation is the danger of penetrating the fundus of the uterus with the point of the sound. That danger is entirely obviated by using this instrument.

In replacing the retroverted uterus instrumental aid is most needed, and many inventions have been made to fulfil the requirements, but they possess few advantages over the ordinary sound. We may notice here that Simpson's sound has been condemned for this operation, and that, too, by recent writers on this subject. For instance, Dr. Marion Sims, in his work on Uterine Surgery, while treating of that instrument, says:

"I object to it only as a redresser. Its whole principle of action is wrong; and hence the pain and suffering it produces. I only wonder it has not done greater mischief. Let us look for a moment at its *modus operandi*." Here he gives a section of the pelvis, showing the sound introduced into the retroverted uterus. "Now if we turn the handle of the instrument on ITS OWN AXIS half a circle, the distal end will elevate the uterus from its abnormal position to that shown by the dotted figure; but in doing this it will describe a semicircle of but little less than two inches and a half radius, sweeping the fundus round with the whole weight of the organ supported principally on the very end of the instrument, which in its gyration changes its point of pressure from the posterior to the anterior face of the uterine cavity. To elevate the fundus still more, we push the handle back towards the perineum, which thrusts the uterine end upwards. Is it to be wondered at, then, that we occasionally meet with patients who look upon the uterine sound with the most painful recollections?"

By this mode of operating with the sound, there is every reason to believe that great injury might be done to the uterus, but the fault lies in the manipulation, not in the instrument used. In place of making the handle revolve on its axis, and the curved portion in the uterus describe the arc of a circle, the order of action should be reversed. The portion in the uterine cavity should be the fixed point, so to speak, and made to turn on *its axis*, while the handle describes the curve. This is perfectly practicable, and when properly performed leaves little if any chance of injuring the uterus. This is the way, I presume, in which Prof. Simpson uses the instrument himself, and intended that others should, although I am not aware of his having anywhere given a detailed description of the method of operating. I will give here, briefly, the manner in which I employ the sound in restoring a retroverted uterus.

I bend the sound to an obtuse angle, leaving the portion which is to occupy the uterine cavity nearly straight, and then adjust the button or ring at such a distance from the point as will insure its not reaching the fundus. Having the patient placed on the back or left side, with the limbs flexed on the body, I introduce the index finger of the left hand, by which the neck of the uterus is easily reached, owing to the fact that there is always prolapsus as well as retroversion, and in that way guide the sound into the cavity. In some cases I use the speculum, and introduce the sound through it, and holding the sound in place, withdraw it. I then let the handle rest across the finger or hold it loosely in the hand, and gradually depress it, at the same time inclining it to one side; by this means, while the point is held by the walls of the uterus, the handle sweeps round in the arc of a circle, without requiring any force to make it do so. When the sound has traversed the half circle, the handle is depressed until the uterus is restored to its normal axis.

If the uterus is found to be below its normal level, a little forward and upward pressure will complete the restoration.

This instrument is made by Tiemann & Co. of New York city.

Medical Items and News.

ANNOUNCEMENT OF THE O'REILLY PRIZE.—At the regular meeting of the New York Academy of Medicine, on the 6th inst., the President, Dr. Bulkley, after reading the conditions of the O'Reilly prize, announced that it had been unanimously awarded to the essay bearing the motto, from Paget: "While we are ignorant of the nature of some of these forces, it is better that their places in our mind should be occupied with remarkable hypotheses, than that they should be left blank, or be overspread with the tinge of one exaggerated theory." The envelope bearing the corresponding motto was then opened by the President, in presence of the Academy, and found to contain the name of ROBERT T. EDES, M.D., 423 Dudley street, Boston Highlands (Roxbury), Mass., who was proclaimed the successful contestant. Two of the competing essays were ruled out, from having been accompanied by the names of their writers.

DR. ORESTES M. PRAY, of Brooklyn, was killed by an accident on the Long Island Railroad, April 23. He was a graduate of the Bellevue Hospital Medical College, afterwards served his pupilage in Bellevue Hospital, and had only recently returned from Europe and commenced practice. He had determined to devote himself to the treatment of diseases of the eye, for which he was particularly adapted by a thorough course of study.

AT a meeeting of the Medical Officers of the New York Eye and Ear Infirmary, held Wednesday, April 28th, 1869, the following preamble and resolutions were adopted:

WHEREAS, A recent railroad accident has caused the death of our late associate Dr. Orestes M. Pray, thus taking from us one of our most esteemed friends, whom we honored for his industry, talent, and professional skill, and loved for his gentleness, his modesty, and unvarying kindness, and who, in the comparatively brief period of his connection with the Ophthalmic department of the Infirmary, had established a high professional character and had won the warm friendship of all his colleagues; therefore,

Resolved, That we tender our sympathy to his family and relatives in their affliction, the suddenness and horror of which have filled us with the deepest emotions of sorrow, and heightened our regret that a career so promising, should so soon be cut short. Yet while we speak the words of condolence and express our sense of bereavement, we will not fail to remember that God, who gave us in our friend such an illustration of Christian virtue, has taken him to higher enjoyments, and will sustain those who lean on Him, even when smitten thus heavily.

Resolved, That these resolutions be published in the *New York Times*, *Brooklyn Times*, *New York Journal of Medicine*, and MEDICAL RECORD, and that a copy be sent to the family.

H. D. NOYES, M.D., *President.*

R. F. WEIR, M.D., *Secretary.*

DR. ALEXANDER H. STEVENS.—At a meeting of the Medical Society of the County of New York, held May 3d, 1869, the following resolutions were unanimously adopted:

WHEREAS, It has pleased God to remove from earth Alexander H. Stevens, M.D., one of our oldest and most distinguished members,

Resolved, That this Society has heard of his death with sincere regret.

Resolved, That this Society looks back with great satisfaction on his long and honorable and useful career as an able and accomplished practitioner and teacher of Medicine and Surgery, and as a diligent laborer in the cause of Public Health.

Resolved, That this Society sympathizes with the family of the deceased in the painful bereavement which they have sustained.

Resolved, That a copy of these resolutions be sent to the family of the deceased, and that they be published in the medical journals of this city.

GEO. T. ELLIOT, M.D., *President.*

BENJAMIN HOWARD, M.D., *Cor. Secretary.*

PROF. A. JACOBI has resigned his professorship of Diseases of Children in the University of New York, and has accepted a similar chair in the College of Physicians and Surgeons.

A NEW OPHTHALMOLOGICAL HOSPITAL will be opened during this month in Twelfth street, near Broadway, with a capacity for thirty patients. The institution is essentially a private one. It is, however, open from one to three P.M. for charity patients. Dr. H. Knapp, late of Heidelberg, is the surgeon in charge; Dr. Thomas Pooley is assistant surgeon, and Dr. Joseph Awb resident.

A LARGE BEQUEST.—Mrs. Harriet H. Hosmer, of Hartford, Connecticut, recently deceased, left $45,000 to Hartford Hospital, and an additional $25,000.on condition that homœopaths are recognized.

THE INVENTION OF THE OPHTHALMOSCOPE.—Helmholtz, now professor in Heidelberg, is the originator of this valuable instrument.

EMBOLI FIRST SEEN IN THE LIVING EYE.—Professor Von Graefe was the first to observe directly, with the ophthalmoscope, emboli in the living eye. Professor Virchow, four years previously, prophesied that it would be feasible.

A HIGH-SOUNDING TITLE.—The celebrated surgeon Langenbeck, of Berlin, rejoices in the following official title: "Geheim Ober-Medicinal Rath General-Aizt Professor Dr. Von Langenbeck."

BISMUTH A WRITING FLUID.—If we write with a pen dipped in a solution of the nitrate of bismuth, after it is dry nothing can be seen, but as soon as we plunge the paper in water the writing will become distinctly visible. Secret intelligence has been conveyed in this way by writing between the lines of ink with the solution of bismuth.

A FACT CONCERNING BISMUTH.—A mixture of two parts of bismuth, one of lead, and one of tin, will melt at 200° Fahrenheit, and spoons are often cast of this alloy for the purpose of playing tricks upon unsuspecting persons at a young folks' tea-party. The moment the victim of the trick commences to stir up his tea the spoon melts away and disappears in the bottom of the cup, leaving a blunt handle in his hand to confound him before the company.

FISH AS AN ARTICLE OF FOOD.—Professor Agassiz, in his address before the Committee of the Legislature of Massachusetts, on the propagation and preservation of fishes, says, as reported in the *Boston Journal:* "The

fish enters largely into the requisitions of the human system. It is a kind of food which refreshes the system, especially after intellectual fatigue. There is no other article of food that supplies the waste of the head so thoroughly as fish diet; and the evidence of it is in the fact that all the inhabitants of the sea-shores the world over are the brighter population of the country. Fish contains phosphorus to a large extent, a chemical element which the brain requires for growth and health. He would not say that an exclusive use of fish would make a blockhead a wise man, but that the brain should not be wanting in one of its essential elements."

A Case of Hæmatemesis.—A fatal case is reported in the *Lancet* in which cirrhosis of the liver was revealed, and the blood-vessels of the stomach were so much dilated that many of them admitted the point of the little finger. The coats of the stomach showed no other signs of disease; the organ contained 45 ounces of coagulated blood.

Multifarious Medicines in the Treatment of Diseases.—The primary list of the United States Pharmacopœia embraces over three hundred drugs, the secondary about seventy-five drugs, and the preparations number about five hundred, making an aggregate of nearly nine hundred officinal articles.

Bleeding.—Perhaps the first case of bleeding to cure disease was the daughter of the Carian King Damœtus, bled by Podalirius more than a thousand years before the Christian era; certainly bleeding long antedated the time of Hippocrates. Galen was an enormous bleeder.

Patent Medicines in England.—Stamp-duty was paid in the year ending March, 1868, on no less than 8,060,754 packets, boxes, etc., of medicines, selling at one shilling or more. The tax produced £62,556.

Cinchona in Jamaica.—From 8,000 to 10,000 plants of *cinchona succirubra* are ready for sale in the island of Jamaica, at the plantation at Gordon Town, this spring.

Pneumonia not Produced by Cold.—According to the United States mortality census, District No. 1, composed of New England and New York, has a mean winter temperature of 22·96°, with one death from pneumonia in every 12,873 inhabitants; while in District No. 8, composed of the four southwestern States, the mean winter temperature was 53·10°, and the deaths from pneumonia equal one in every 3,250 of the inhabitants.

Adulteration of Milk.—Edwin M. Snow, M.D., of Providence, Rhode Island, states, in a "Communication on the Adulteration of Milk," that the average specific gravity of milk from any dairy should not be lower than 10·30. In Providence the milk-dealers impoverish thin milk by removing the cream and adding water. Most of the samples examined by him gave an excessively alkaline reaction, while pure, fresh milk should be slightly alkaline. This can be easily accounted for from the fact that bicarbonate of soda is frequently added to raise the specific gravity. He believes it were better, both for the producer and the consumer, if a small quantity of the bicarbonate, say a teaspoonful to the gallon, were added immediately after cooling. This would neutralize a small quantity of acid first formed and prevent the rapid souring of the whole mass.

Poisoning by Stramonium Seed.—Dr. J. F. Freuman reports, in the *Chicago Medical Journal*, the following cases of poisoning: He was called to see a mother and two daughters, who had had paroxysms of ague, and had taken, as they supposed, fennel seed, but it proved to have been stramonium seed instead. When first seen the mother and daughter were raving like maniacs, while the other was rapidly sinking into coma. Tinctura opii was at once given, and morphia injected subcutaneously. The youngest girl recovered rapidly, but the others only after having taken several large doses of morphia. The recovery in each case was complete.

Singular Effect of a Burn.—Dr. S. P. Crawford (*Nashville Journal of Medicine and Surgery*) relates the following singular case: A lady being in the last stages of gestation, was so severely burned upon the face, body, and extremities, that she survived the accident but twelve hours. A short time before death she gave birth to a child, at full maturity, but still-born. It bore the mark of the fire corresponding to that of the mother. Its legs, arms, and abdomen were completely vesicated, having all the appearance of a recent burn.

Sanitary Condition of Nice.—Invalids should leave Nice after the beginning of January, in order to avoid its winds and dust. The foul smells arising from the neglect of drainage are a nuisance, and should be brought to the notice of the authorities. The rapidity of its growth is almost incredible, and the apathy about sanitary laws disgraceful. During the last three years Nice, so far as the visitors' quarters are concerned, has almost doubled.

The Cause of the Cattle Disease.—At a convention of cattle commissioners recently held at Springfield, Illinois, the *cause* of the disease was discussed at length, but there was no settled uniformity of opinion in relation to it. Two prominent theories were presented, viz.: the *Spore* theory and the *Tick* theory. With regard to the *Spore* theory certain established facts were presented, as follows: In the blood of all native cattle sick with the Texas disease there were numerous microscopic spores, the blood was disorganized, the corpuscles were broken down and largely diminished in quantity. The same spores were also found in the gall and other secretions of the sick cattle. These same spores were also found, to some slight extent, in the blood of apparently healthy Texas cattle, but never in the blood of healthy native cattle. With regard to the *Tick* theory of the cause of the disease, it seems to be established that all or nearly all the Texas cattle on their arrival in Illinois were infested with ticks; that these ticks on reaching their full growth fell off and perished, each tick producing myriads of eggs; that when these eggs fell on the ground it required a period of from six weeks to two months for them to hatch; and that at this time the small tick were found in immense numbers, covering every blade of grass and other vegetation where the Texas cattle had been kept. The majority of the delegates inclined rather to the *Tick* theory. In conclusion, Dr. Edwin M. Snow, of Providence, Rhode Island, in his report on this subject, believes that the free use of dilute carbolic acid about the cattle yards, in the cattle cars, and upon the cattle, would destroy the ticks and entirely prevent the disease, if the disease is due to the presence of ticks.

Opium-Eating.—Mr. Horace Day, of New Haven, the reputed author of "The Opium Habit," has eaten over fifty pounds of opium. He discarded the habit in less than six weeks after he had "made up his mind."

American Medical Association.

TWENTIETH ANNUAL MEETING.

HELD IN THE CITY OF NEW ORLEANS, MAY 4, 5, 6, AND 7.

First Day.—Tuesday, May 4, 1869.

The Association convened at Mechanics' Institute, New Orleans, La., on Tuesday, May 4, 1869, and was called to order by the President, W. O. Baldwin, M.D., of Alabama, at 11 o'clock, the appointed hour.

The opening prayer was offered by the Rev. Mr. Gallagher, of Trinity Church.

Dr. T. G. Richardson, Chairman of the Committee of Arrangements, gave an address of hearty welcome to the delegates, and detailed the plan of business of the Association. No change of hour was deemed expedient. The following gentlemen were invited to seats on the platform: Drs. H. F. Askew, of Delaware; N. S. Davis, of Illinois; and Alden March, of N. Y., ex-presidents of the Association; and Drs. Warren Stone, and A. Lopez, of New Orleans. Drs. Taney, Legare, Anfoux, Tebault, and Barnes, of New Orleans, and McFarland, of Mississippi, were elected members by invitation.

ADDRESS BY THE PRESIDENT.

Dr. W. O. Baldwin, the President, then delivered the following address:

Gentlemen of the American Medical Association: I congratulate you on the return of an occasion which permits us to renew that fraternity of intellect no less than that sympathy of feeling by which our life and vocation as physicians are beautified and ennobled. Of no profession are the inspired words more true than ours, that we are "members one of another." The ideal of our profession is that of complete and thorough oneness. What is scientific truth for one is scientific truth for all. We have a common estate in the facts, aims, and purposes that belong to the science of medicine; and hence we do a wise work when we acknowledge the exalted unity of the medical profession by this annual assemblage.

The nature of this occasion reconciles me, in some degree, to the task which I now have to perform. When I remember that the position I now occupy was first filled by the distinguished Chapman, and that the succeeding anniversaries have been presided over by men whose genius had shed not only light, but lustre, on the annals of our profession, I feel that nothing but the inspiration which breathes through affections, kindled into life by this Association, could sustain me under the sense of incompetency for the duties to which your kindness has called me. Relying on the same spirit which prompted you to confer on me the highest distinction within the gift of the medical profession of America, and hoping that my deficiencies may be forgotten in the interest and magnitude of the subjects awaiting your deliberation, I proceed to discharge the duty which the custom of my predecessors has imposed upon your presiding officer.

The spirit of a profession is the true sign of its character, as it is the measure of that respect with which its talents and services are regarded. Manly sentiment, springing from broad and genial sympathies, is the soul of every profession, and if it is wanting, no skill, not even usefulness, can prevent it from sure and speedy degradation. The first and last requisite of professional life is not power of intellect, however valuable that may be, nor those acquisitions of knowledge that enrich our thoughts, but that other and finer quality of generous manhood, which, as a subtle and pervading essence, enters with its healthy vigor and animating impulse into all its connections. Of our profession this is eminently true; and, on this account, I rejoice that the records of this Association give no evidence of sectional unkindness and prejudice even during the period of our bloody war.

To me, gentlemen, this occasion is one of solemnity and significance. Standing here in the great commercial metropolis of the South, I find myself surrounded by men representing nearly every section of a country so lately arrayed in hostile strife. At a time when every other organization has been shaken to its centre by the passions of deadliest hate; at a time when the most matured conservatism has been overmastered by the vindictive fury which has swayed the popular mind; at a time when even instinct has been treacherous to its ends; you have been drawn hither from homes far distant, over highways full of painful historic incidents, through territories watered by the blood and tears of a sorrowing nation; and you have assembled here as brothers and friends, to unite your offerings to a common science. The mournful witnesses of this terrific struggle have confronted your eyes; the shadowy phantoms still linger on the stage where these tragedies have been performed; the air we breathe has not yet lost its echoing groans of dying heroism nor the pathetic anguish of sorrowing relatives. Amid these circumstances, so sundering to the most sacred companionships of life, you have met in the spirit of Him who is this world's greatest and best Healer—that Divine One, who, opening and continuing his ministry of service by curing all manner of diseases, finished its majestic self-denials in the reconciliations of the cross.

Eight years ago we were separated by civil war. That war engendered the bitterest feeling in every other national organization, whether scientific, political, or Christian; but the members of this Association, without words of crimination or reproach for one another, assumed the respective places assigned them by the obligations of citizenship. Through the long and bloody contest which ensued, this Association, in its resources, honor, and renown, was in the keeping of our Northern brethren; and during those memorable years, when the sense of bitter wrong and burning hate filled all hearts, and when friendships and affections, born of the hallowed ties of friendship and consanguinity, sent their messages—once of love and tenderness—at the point of the bayonet or through the cannon's mouth, what were the feelings which moved this Association? At the first meeting, two years after the war began, they indulged only in expressions of profound regret that "the brethren who once knelt at the same holy altar, and drank with them at the same pure fountain," had been separated from them by civil war, endangering thereby the claims of the Association "to an unselfish nationality, and robbing it of the presence and counsel of many of its warmest adherents;" while praying at the following meeting that the period would soon come when we should again be "one in our political, professional, and social relations."

The same humane and catholic spirit continued during the war to mark the conduct of the members of this Association. Each of the divided sections met the tasks required by its respective position. But wherever found, whether sharing the hardships of the campaign or discharging the duties of private practice, they comprehended the essential difference between what might prove on the one hand a transitory evil, and what on the other hand they knew would be a lasting good. Accordingly they remained the consistent re-

presentatives of a noble brotherhood. If they did not sink the patriot in the physician, they did not sink the physician in the patriot. The imperative instincts of each character, true to its trusts and faithful to its requirements, acted for themselves and in the direction of their own ends. Amid the shouts of battle and the shock of arms they raised themselves to the height and grandeur of their calling, and thus stood far above the embittered prejudices that encircled all other classes of men. So far from allowing the fugitive passions of the times to betray them from their professional allegiance, they vindicated their sagacity no less than their manliness by looking to the future—by contemplating results not the less certain because remote—by regarding with thoughts chastened and subdued that state of man in which the interests of life and death meet together—and by considering as paramount to all selfish motives the claims of that science with whose undisclosed mysteries they must yet wrestle for the well-being of mankind. Above all, they looked to the transcendent value of a virtue which should contrast, in broad masses of light, its purity and power with the corruptions and frailties of the hour, which should, by reason of its disinterestedness, diffuse itself through the affections of nations, and reach in the large outgoings of its sympathy the hearts of generations yet unborn.

When at last this dispensation of carnage ended, and while as yet the war-path was crimsoned with the blood or whitened with the unburied bones of our brethren, this Association again met. Like the surges of the sea—dark, tumultuous, raging, though the storm has passed from the sky and fled beyond the horizon—the meaner instincts of hatred, revenge, and persecution still swayed the multitude. The mob of fanatical intellect unappeased, and the mob of popular passions thirsting for new strife, joined their hands to prolong the wretched alienation. The avenging angel had lifted his brooding wings from the landscape and cried, "It is enough;" but now other vials of wrath seemed about to be poured forth on a land hopeless because helpless. You then meet to pour oil on the unquiet waters. Here was scope for a statesmanship, aye, for a generalship grander than any which the war had developed. Here was the best of opportunities to inaugurate a new epoch of fraternal sympathy. Nor were you unmindful of its solemn behests. True to your past professions of regret over our separation, you saw the vacant seats in this Association of your Southern brethren, and, actuated by the higher instincts of manhood, and scorning the base ambition to degrade a fallen antagonist, whom the saddest experience had taught the bitterest lessons of life, you set the nation an example of dignity, moderation, and virtue, to which no other organization in the land has yet had the wisdom or the sensibility to rise.

Within a few weeks after the cessation of hostilities this Association held its regular annual meeting in the city of Boston, and there renewed, with manly sympathy, its former expressions of kindness, inviting us to come again and be their brethren. I quote their own language on that occasion when I say: "The unhappy feud which for years has divided the nation has ceased, and peace has come, we trust for ever; so we hope soon again to meet our members and delegates from the South on the platform of fraternity, and to this end we extend to them a cordial welcome." At a subsequent meeting you repeated this sentiment in the following language: "We would fain meet again those from whom we have been separated, draw the mantle of forgetfulness over the past, renew to them the expression of regard, and with them dedicate the hour and the occasion to the sacred cause of learning, friendship, and truth."

And when at the last meeting we met our Northern brethren, how were we received? They met us as equals in the past and equals in the present, saying in effect if not in words: "If quarrel we ever had, it is over; we have no explanations to offer, no apologies to demand; we know that we have done our duty; we feel that you have done no more, and that you would have been unworthy your noble vocation had you done less; we have guarded faithfully the institution so long left in our charge, in which we now claim but an equal interest with you; with the incense we have burned in its sacred fane we have not permitted the poisonous spirit of party to mingle, and we now invite you to go with us to the smiling and peaceful fields of that science whose interests it shall be our common work to foster and advance; here we will walk with you to the stern realities and moveless grandeur of labor and thought, and find in their quiet paths a relief from the gloom of the past; here we will divide with you the toils and share with you the rewards of labor, the honors of success." Against the insolence of the day; against its unreasonable pride, its overweening vanity, and its shameless scorns, your conduct bore a moral protest which, while acting directly on our profession, has had no small agency in producing those indications of a return to reciprocal sentiments of confidence and respect in which all the good men of the country rejoice. The mythical war between the Athenians and Amazons led, in the midst of arms, to the most intimate friendship between their leaders. When Pirithous and Theseus finally met on the plains of Marathon, after many a hard-fought battle, the former, regarding himself and army as captives, said to the latter: "Be judge thyself; what satisfaction dost thou require?" the noble Athenian replied: "Thy friendship;" and they swore inviolable fidelity, and were ever after true brothers in arms. Alas that the nineteenth century has so often to recur to classical heathenism to find its illustrations of genuine magnanimity!

Looking at these facts, am I not warranted in asking if any organization has emerged from our late convulsions with so much dignity? Has it not come forth from the sharp ordeal with those graceful virtues that belong to our higher nature? The world may have its conventional rules of intercourse between man and man—its creed of moral philosophy—its code of honor—its accredited formula of behavior, while it lavishes its praise on the charms of human brotherhood; but it has been left to the American Medical Association to teach practically the intellects of the land one of the most ennobling lessons in the dignity, beauty, and glory of refined and civilized life—a lesson that not only hallows the spirit of our professional character, but instructs the physician in those spiritual sentiments which lead to the highest virtues, among which are reckoned Charity and Forgiveness. Of the one, we are told that the archangel, who never knew the feeling of hatred, has reason to envy the man who subdues it; while of the other, it is said, that when we practise forgiveness to the man who has pierced our heart, he stands to us in the relation of the sea-worm that perforates the shell of the mussel, which straightway closes the wound with a pearl.

No apology, gentlemen, is necessary for dwelling so long on the moral spirit of this Association. If I had not believed that a moral sentiment underlies all profound thought, all true research, all genuine wisdom; that it is the strength of civilization, the security against those covert forms of heathenishness and brutality that lurk under the imposing hypocrisies of outward splendor, and the ulterior end for which nations

and mankind exist; if I had not been assured that our profession rests on this basis, and can rest on no other, I should not have devoted so much time to this subject. Turning from these reflections, so naturally suggested by the circumstances of our present meeting, I am reminded that other points of great practical significance claim our attention.

The President then gave a sketch of the present state of medical education in the country, and proposed in the following words a plan which, he believed, would tend in a measure to remedy many, if not all, of the evils:—

I would advise that we appoint a committee of our wisest and best men to digest a plan for one or more National Medical Schools, and to memorialize Congress in behalf of the enterprise. Let the plan embrace as a basis the feature presented by the Cincinnati Convention of Teachers; let these schools or universities confer such distinctions and privileges as will be proportionate to the superiority they demand, and such as will make the attainment of their diploma an object to the ambition of those who engage in the study of medicine; let the chairs be open to all aspirants, and the appointment or election of professors so guarded as to secure the very highest talents, the most profound learning, with the most fully demonstrated capacity for teaching. Make the salaries of the professors large, and not to depend upon the number of students; and let the Federal Government assume a proper share of the expenses incurred.

The number of these schools may be multiplied as experience may demonstrate their superiority and necessity.

Our present medical schools, and such as hereafter obtain their charters from State governments, may adopt their own regulations, and such as do not conform to the National standard will either become tributaries or preparatory schools to the National universities, or dwindle into merited neglect.

I am persuaded that such assistance on the part of Congress can be obtained. I think that a committee could demonstrate, that of the vast amount of labor and money expended annually for the public good, a portion could not be better bestowed for the welfare of humanity and the interests of American civilization, than in creating and upholding one or more universities which will perfect the object for which this Association was organized. Such reforms have not been elsewhere effected except through governmental interposition, and our own experience has amply shown that it is vain for us to hope for them through any other means.

I am perfectly well aware that any plan looking to the General Government for sanction and support has its embarrassments, and that it will be opposed on the ground of incompatibility with republican institutions; but I do not doubt that all objections can be fully answered. The most moderate view taken of the offices of government specifies *protection* as its main end, and when, if not here, is protection demanded? Utilitarianism proclaims its conquering motto in the words, "The greatest good to the greatest number;" and when, if not here, has the motto a consummate application? The recent changes in political science, as well as the practical revolutions in the institutions and relations of the age, show clearly enough that whether for good or ill, governments are becoming more direct representatives of the prevailing public opinion, and are acting more immediately from the popular heart. Tell me how this government could more effectually permeate our homes, our tenderest sentiments, our truest earthly well-being, than by bending its mighty aid to a measure so fraught with patriotic philanthropy? No profession has a sublimer human ideal than ours; none comes closer to the daily evolutions of Providence; none touches the individual and social happiness of men at so many points; and yet, standing in this high relation, it is almost alone in the facility with which ignorance may enter and work its mischief. If a student of law receives license to practise his profession, his blunders in the conduct of his cases do not often affect the happiness or well-being of a family; and besides, his errors may be corrected; his case may be reargued; and withal, he belongs to a profession jealous of its intellectual power and most sensitive to its influence—a profession which compels a man to show what are his merits, to demonstrate to the court, the bar, the jury, and the world, his precise abilities, and allows him to win no success not based upon professional capacity. But where a young man obtains his diploma from a medical college, he has passed through the only trial the law demands, and has obtained that which society recognizes as the test of merit. Next to the minister of the Gospel, the physician appeals to the sentiments of the public mind, and particularly to those sympathies which are least inclined to make close examination of pretensions. The atmosphere in which he moves is unfavorable to keen criticism; the circumstances of anxiety and often of sorrow, as well as the feeling of dependence under which his professional skill is sought, indispose families to scrutinize his ability, and he is usually accepted with implicit reliance. Outside of the medical colleges, what safeguard protects a community from impositions of ignorance, stupidity, and recklessness in our profession? You all know that society has no redress at the hands of physicians themselves, since their lips are sealed as to censuring comments on the practice of their professional brethren. Two physicians may receive diplomas from the same or different colleges; one may be highly intelligent, the other grossly ignorant. Yet they stand before the community as equally learned and equally authoritative. Through a pleasing and artful address the ignorant brother may outstrip his more accomplished rival in acquiring the confidence of the community in which they live. The latter may daily witness the gross and even fatal blunders of the former, yet in view of the creed of common courtesy recognized by general society, as well as the Code of Ethics established by yourselves, nothing would be more unwise than for him to attempt the exposure of his weak and ignorant brother.

Then there is, gentlemen, no safeguard but in a thorough preparation of those who seek to be clothed with the doctorate. To this end you are pledged, and from this position you cannot recede without discredit to yourselves and certain degradation to that calling of whose interests you are the highest representatives, the recognized and rightful guardians.

A profession like ours, that is invested with a power of unequalled beneficence; that disdains all mystery, all prestige of authority, and all superstitious veneration for traditional dogmas; that asks for confidence on the sure basis of scientific knowledge, appropriates no discovery to selfish aggrandizement, holds its resources as the gift of Heaven, open to the good of all mankind, and labors to imitate Him who, nearly nineteen centuries ago, healed the infirmities of the multitudes that waited on His ministry of love and wisdom; such a profession should never falter in giving heed to its own instincts, never waver in strenuous and persistent exertions to elevate still higher its practical ideal, and never abate those heroic convictions which are at once the proof of its high vocation, the credentials of

its claims on public respect, and the pledges of its sure success.

On motion of Dr. H. F. Askew, of Delaware, the address was referred to the Committee of Publication.

REPORTS OF SPECIAL COMMITTEES.

After the reading of letters from different members, expressing regret at the inability to be present, the Reports of Committees were duly called for.

On the Cultivation of the Cinchona Tree. By L. J. Deal, of Penn. Accepted and referred.

On Alcohol and its Relations to Medicine. By Dr. J. Bell, of Penn. Received and referred.

On the Cryptogamic Origin of Disease, with Special Reference to Recent Microscopic Investigations on the Subject. By Dr. E. Curtis, U. S. Army. Referred to Committee on Epidemics.

On Operations for Hare-lip—Dr. A. Hammer, Missouri, chairman. No report.

On Clinical Thermometry in Diphtheria—Dr. Jos. G. Richardson, New York, chairman. Discharged at their own request.

On Prophylactics in Zymotic Diseases—Dr. Nelson L. North, New York, chairman. Reported and referred to Section on Meteorology and Epidemics.

On Inebriate Asylums—Dr. C. H. Nichols, Washington, D. C., chairman. No report.

On the Influence of Pneumogastric Nerve on Spasmodic and Rhythmical Movements of the Lungs—Dr. Thomas Antisell, Washington, D. C., chairman. No report.

To Examine into the Present Plan of Organization and Management of the United States Marine Hospitals—Dr. D. W. Bliss, D. C., chairman. No report.

On the Utilization of Sewerage—Dr. Stephen Smith, New York, chairman. No report.

On the Influence of Quarantine in Preventing the Introduction of Disease into the Ports of the United States—Dr. Elisha Harris, New York, chairman. No report.

On Nurse-Training Institutions—Dr. Samuel D. Gross, Pennsylvania, chairman. Reported and referred to Section on Practical Medicine.

On Commissioners to Aid in Trials Involving Scientific Testimony—Dr. John Ordronaux, New York, chairman. Reported and referred to Section on Medical Jurisprudence.

On Annual Medical Register, Dr. John H. Packard, Pennsylvania, chairman. Reported progress, and on motion of Dr. Mussey, of Ohio, it was

Resolved, That each State Medical Society be requested to prepare an Annual Register of all the regular practitioners of medicine in their respective States, giving the name of the colleges in which they may have graduated, and date of diploma or license.

On Devising a Plan for the Relief of Widows and Orphans of Medical Men—Dr. John H. Griscom, New York, chairman. Reported, which was referred to the Committee of Publication.

On Veterinary Colleges—Dr. Thomas Antisell, D. C., chairman. Reported progress and was continued.

On Specialities in Medicine, and the Propriety of Specialists Advertising—Dr. E. Lloyd Howard, Maryland, chairman. Reported, and was, on motion, made the special order for Wednesday, at 12 M.

On Library of American Medical Works—Dr. J. M. Toner, D.C., chairman. Reported, and was, on motion of Dr. Davis, made special order for Wednesday at 1 P.M.

On Vaccination—Dr. Henry A. Martin, Massachusetts, chairman. No report.

On the Decomposition of Urea in Uræmic Poisoning—Dr. H. R. Noel, Maryland, chairman. No report.

On the Best Method of Treatment for the Different Forms of Cleft Palate—Dr. J. R. Whitehead, New York chairman. Reported and referred to section on Surgery.

On Rank of Medical Men in the Navy—Dr. N. S. Davis, Illinois, chairman, announced that their last year's report was final, and committee was discharged.

The Report on Medical Ethics, by Dr. D. Francis Condie, Pennsylvania, chairman, was read by Dr. Davis, and adopted.

On American Medical Necrology—Dr. C. C. Cox, Maryland, chairman, reported progress, and was continued on motion of Dr. Davis. Dr. Cox was authorized to fill all vacancies on his committee.

Voluntary communications were presented by Prof. Jos. Jones, of N. O., on Mollities Ossium; and referred to Section on Surgery.

On Cases of Lead Palsy from Use of Cosmetics, by Dr. L. A. Sayre, of New York. Referred to Section on Hygiene.

On the Physiology and Chemistry of Longevity, by Dr. Cutler, of Mississippi. Referred to Section on Hygiene.

On the Protective and Preventive Uses of Quinine, by Dr. S. Rogers, of New York. Referred to Section on Practical Medicine.

On the Tongue in Malarious Diseases, by Dr. Osborn, of Alabama. Referred to Section on Practical Medicine.

On the Warm Cerebro-Spinal Bath in the Treatment of Congenital Apnœa, and on a New Method of Artificial Respiration, by E. D. McDaniel, of Alabama. Referred to Section on Practical Medicine.

Reports on Climatology and Epidemics were received from Drs. Thomss, of New York; T. J. Heard, of Texas; F. W. Hatch, of California; E. A. Hildreth, of West Virginia; which were referred to the Section on Climatology and Epidemics.

Reports of progress were received from Drs. Hamill, of Illinois; A. Lager, of Michigan; Compson, of Mississippi; and Pimm, of Louisiana.

On motion of Dr. Davis, the Report on the Revision of the Plan of Organization was made the special order for Wednesday at 10 A.M.

Papers relative to Medical Education were read and referred, on motion of Dr. Davis, to a special committee of five, to be appointed by the President.

The President appointed Drs. Davis, Ill.; P. F. Eve, Tenn.; E. S. Gaillard, Ky.; E. Lee Jones, N. Y.; and J. K. Bartlett, Wis.

On motion, adjourned until Wednesday at 9 A.M.

RECEPTION AT MECHANICS' INSTITUTE.

On Tuesday evening the delegates had a formal reception at Mechanics' Institute. A large number of citizens and a good sprinkling of the fair sex greatly enlivened the entertainment, and lent an additional zest to the enjoyment of the guests. A bountiful repast had been provided (a notable feature of which, for Northerners at least, was strawberries and cream) and was appetizingly discussed. All present were refreshed as well as edified.

SECOND DAY—WEDNESDAY, MAY 5, 1869.

The meeting was called to order by the President, Dr. W. O. Baldwin, at 9 A.M., pursuant to adjournment.

On motion, the reading of the minutes was dispensed with.

The following members were, on motion, elected members by invitation: Dr. Jas. E. Morris, New Iberia, La.; Drs. Wm. H. Watkins, John M. Cullen, Charles H. Kelly, S. R. Hurd, C. J. Beekham, P. B. McKelvey,

Wm. G. Austin, J. Bensadon, O. Anfoux, H. D. Schmidt, Fr. Loeber, S. A. Smith, of New Orleans; L. L. Henry, Henderson McFarland, J. S. Bacon, of Mississippi; Dr. C. Tucker, of Danville, Ky., and Drs. Florence, O'Donnoghue and John F. Randolph of the U. S. A.

Dr. Paul F. Eve submitted a paper on the "Canula as a New Mode of Applying Ligatures." Referred to the Section on Surgery.

Dr. J. M. Bush, of Ky., offered the following, which was adopted:—

Resolved, That a committee of five members be appointed by the chair, to take into consideration the subjects alluded to in the President's address, and report at this meeting.

The following gentlemen were appointed on the above committee: Dr. Parvin, of Indiana, chairman; Dr. Toner, of the District of Columbia; Dr. Pollock, of Pennsylvania; Dr. Welch, of Texas; Dr. Seeley, of Alabama.

REFORMS IN MEDICAL EDUCATION.

Dr. McPheeters, of St. Louis, presented a petition from the faculty of that city, suggesting some necessary changes in reference to graduating incompetent persons. The main reason for the existing evil seemed to centre itself in a rivalry between the regular schools. It was, on motion of Dr. Toner, referred to the special committee on that subject.

A report from the Medical Society of Tennessee, pertaining to the same subject, and offered by Dr. Eve, took the same course.

Dr. E. S. Gaillard, of Ky., offered the following, which were likewise referred:—

Whereas, The medical teachers of America have, after a trial of twenty-two years, failed to meet satisfactorily and efficiently the requirements of the great body of the profession in regard to medical education; and

Whereas, the condition of the profession is yearly becoming more deplorable on account of the antagonistic and objectionable policy of medical schools in making the amount of fees charged, rather than a successful teaching, the basis of competition; and

Whereas, to obtain professionally competent graduates, sound and efficient teachers are indispensably necessary; and

Whereas, such teachers, to be found throughout the country, cannot be induced to leave their homes without the assurance of competent remuneration; and

Whereas, such remuneration can only be obtained by adequate fees charged, unless by a system of low fees the number of students be relied upon to make up the inevitable pecuniary deficiency; and

Whereas, reliance upon numbers of students for this purpose deplorably crowds the already overcrowded professional field, diminishing thereby individual income, judgment, experience, and skill, thereby compelling practitioners to resort to other avocations as a source of supplemental income; and

Whereas, this devotion to other pursuits destroys opportunities for study and improvement, degrading thereby the status and standard of American physicians; and

Whereas, the schools of New England, New York, Pennsylvania, Maryland, Virginia, South Carolina, Georgia, Alabama, Texas, Tennessee, and District of Columbia now charge comparatively remunerative fees; and

Whereas, the low system of fees is charged only in a few of the Middle States, and can with advantage be made to conform to the rate of fees charged elsewhere; and

Whereas, it is as unethical for colleges to underbid each other pecuniarily as for practitioners to do so:

Resolved, That hereafter no medical school in this country, other than those fully endowed, be entitled to representation in this Association, if the amount charged by such schools for a single course of regular lectures be less than one hundred and forty dollars.

Resolved, That all schools charging less than this sum are earnestly requested by this Association to advance their rate of fees to the amount mentioned.

The report of Dr. Charles A. Lee, of New York, delegate to the Association of Superintendents of Insane Asylums, was presented and referred to the Section on Psychology.

The report of Dr. Gross, of Pennsylvania, delegate to Foreign Medical Association, was offered, together with the letter to Prof. Ehrenberg, was next read and referred to the Committee of Publication.

AMENDMENTS TO THE CONSTITUTION, ETC.

In accordance with a previous motion the consideration of the revision of the Plan of Organization of the Association was taken up.

Dr. Hibberd, of Indiana, offered the following, which was adopted:

Add to Art. VII. the following: "Provided, however, that when an amendment is properly under consideration, and an amendment is offered thereto, germane to the subject, it shall be in order, and, if adopted, shall have the same standing and force as if proposed at the preceding meeting of the Association."

The following amendments, submitted last year, were then in due course adopted:

II. *Members.*—In this section, second paragraph, fourth line, insert after the words "United States" the words "from the army and navy."

In fifth paragraph, third line, insert after the word "member" the words "or whose name shall have been, for non-payment of dues, dropped from the rolls of the same;" in fifth line (same paragraph), after the word "sentence," read "or disability;" in sixth line, after the word "society" add the following: "Or shall have paid up all arrears of membership; nor shall any person, not a member and supporter of a local medical society, where such a one exists, be eligible to membership in the American Medical Association."

In seventh paragraph, fifth line, strike out the remainder of sentence after the word "by" and insert the words "at least three of the members present, or three of the absent permanent members." In ninth line after the word "delegates," add the words "except the right to vote."

In eighth paragraph, fifth line, add after the word "delegates," the words "and comply with the requirements of the by-laws of the Association."

In ninth paragraph, third line, insert after the word "must" the words "exhibit his credentials to the proper committee."

III. *Meetings.*—In first paragraph, third line, strike out after the word "shall" the words "never be the same for any two years in succession, and shall."

After the ninth paragraph insert the following new sentence: "Corresponding members shall consist of such medical gentlemen, eminent in their profession, residing out of the United States, as the Association shall, from time to time, elect."

IV. *Officers.*—In first paragraph, third line, after the word "Treasurer" insert the words "and Librarian." In second line, after the word "Secretary" strike out the article "and."

The following amendment was, after much discussion, unanimously rejected: In the third line, after the word "Librarian," insert the following new sentence: "The President shall be nominated and balloted for in open convention, and shall be elected only from those who have attended at least five annual meetings of the Association; and if, on the first ballot, no person receives a majority of the votes cast, the second ballot shall be confined to the three highest on the list; should no

choice be then made, the candidate lowest on the list shall then be dropped. In the event of a tie on the third or succeeding ballot, the President shall decide by a casting vote."

After eighth paragraph insert a new paragraph as follows: "The Librarian shall receive and preserve all the property in books, pamphlets, journals, and manuscripts presented to or acquired by the Association, record their title in a book prepared for the purpose, acknowledge the receipt of the same, and he shall also be a member of the Committee of Publication."

V. *Standing Committees.*—In second paragraph, second line, insert after the word "members" the words "of whom the Assistant Secretary shall be one."

In third paragraph, first line, strike out the word "and." In second line, after the word "Treasurer" read "and Librarian."

VI. *Funds and Appropriations.*—In first paragraph, fifth line, insert after the word "the" the words "delegates and permanent." In same line strike out the word "individual."

VII. *Provision for Amendment.*—In the first paragraph, fourth line, strike out the word "members," and insert the word "delegates."

By-Laws.—III. *Standing Committees.*—In second paragraph, ninth line, strike out all after the word "resolution."

In third paragraph, fourth line, after the word "receive" insert the word "original." In same line, after the word "any" insert the word "medical."

In third paragraph, eleventh line, strike out the word "volunteer" and insert the word "original."

In sixth paragraph, second line, after the word "State" insert "and Territory." In fourth line strike out the words "our country" and insert the words "their respective States and Territories." In same line strike out all after the word "and" and insert the words "shall transmit them to the chairman of this committee on or before the first of April of each and every year."

V. *Assessments.*—In fourth line strike out the word "the," and in same line all after the word "expenses" to the end of the sentence.

In second paragraph, first line, strike out all after the word "invitation," and insert the following sentences: "Permanent members not in attendance will transmit their dues to the Treasurer. Any permanent member who shall fail to pay his annual dues for three successive years, unless absent from the country, shall be dropped from the roll of permanent members."

On motion of Dr. Davis, of Illinois, the amendment was amended as follows: "After having been notified by the Secretary of the forfeiture of their membership."

The amendment was adopted as amended.

The following were adopted as read:

VII. *Delegates to Foreign Medical Societies.*—In first paragraph, fourth line, after the word "Europe" insert the words "or other foreign countries."

X. *Of the previous question.*—When the previous question is demanded, it shall take at least twenty members to second it, and when the main question is put under force of the previous question and negatived, the question shall remain under consideration the same as if the previous question had not been enforced.

A recess was then taken to allow of the selection of members of the Committee on Nominations. The following gentlemen were named:

New York, J. C. Smith; Delaware, H. F. Askew; Pennsylvania, A. M. Pollack; Kentucky, H. M. Skillman; Tennessee, J. B. Lindsley; Mississippi, W. Y. Gadbury; Alabama, J. Cochran; Ohio, John Townsend; Indiana, B. S. Woodworth; Illinois, T. D. Fitch; Wisconsin, H. Van Duser; Missouri, J. S. Moore; Michigan, J. B. White; Georgia, R. D. Arnold; Louisiana, S. Logan; Texas, S. M. Welch; Minnesota, C. N. Hewitt; Arkansas, R. G. Jennings; West Virginia, W. J. Bates; Rhode Island, G. L. Collins; District of Columbia, L. W. Ritchie; United States Army, J. J. Woodward; United States Navy, F. E. Potter.

Dr. Chaillé, of La., submitted a plan for a new and universal nomenclature in medicine, founded on a model for the same, published by the Royal College of Physicians of London, and accordingly offered the following:

Resolved, That a committee of five be appointed by the President, to report as soon as practicable to the present session of this Association upon the following:

1. The propriety of adopting, and using its influence to have adopted, by the entire medical profession in the United States, a provisional "Nomenclature of Diseases of the Royal College of Physicians."

2. On the practicability of having this nomenclature published in such manner as may render it easily and cheaply accessible to every member of the profession.

3. To recommend such other practical measures for the action of this Association as may be necessary to introduce this nomenclature into official (military, naval, &c.) and general use.

Dr. Woodward, U. S. A., favored the proposition, and stated that the Surgeon-General was inclined to adopt it.

On motion, the resolutions were adopted, and the following gentlemen appointed members of the committee: Drs. Woodward, U. S. A.; Heustis, Alabama; F. G. Smith, Pa.; and Chaillé, of Louisiana.

PROPOSED AMENDMENTS TO CONSTITUTION.

Dr. Cochran, of Alabama, offered the following amendments, which were laid over under the rules:

1. Section 2, paragraph 1—That the clause "as members by invitation" be stricken out.

2. That the second paragraph be stricken out.

3. That of paragraph fourth all shall be stricken out except the first sentence.

4. That paragraph 7, of "members by invitation," be stricken out.

The reports of the Committee of Publication and the Treasurer were read, accepted, and referred to the Committee of Publication.

REPORT ON SPECIALISTS, ETC.

The report on Specialists was read by the Secretary, and on motion of Dr. Sayre, N. Y., it was adopted.

Dr. L. P. Yandell, Jr., of Ky., then offered the following:

Resolved, That private handbills, addressed to members of the medical profession, or cards, calling the attention of professional brethren to themselves as specialists, be declared in violation of the Code of Ethics of the American Medical Association.

Quite an animated discussion took place upon the above resolution, and was partaken in by Drs. Sayre, of N. Y., Davis, of Illinois, Mussey, of Ohio, and others. In the course of the debate an amendment was introduced to insert "or in medical journals," and the whole, as amended, was finally adopted.

CONCERNING THE RECOGNITION OF HOMŒOPATHY.

Dr. Burnett, of Miss., introduced a question transmitted by the Vicksburg Medical Society, asking whether the members of that body were entitled to hold communion with a certain old practitioner, of thirty years' standing, a regular graduate of medicine, who declares that he practises both homœopathy and the regular system.

Dr. Toner: I would like to ask if the physician in

question is a member of the Vicksburg Medical Society? If so, I would move that that body be denied the right of representation here.

DR. BURNETT: He is not a member of that association.

DR. DAVIS, of Illinois: When a man puts an *ism* or an adjective to his name, he should be excluded from this association. Homœopaths are not recognized by it.

DR. PALMER, of Michigan, read from Code of Ethics, proving that such a man was unfit to be recognized by any respectable practitioner.

DR. BURNETT: The physician claims to be a regular physician though he practises homœopathy.

DR. TONER: If our Vicksburg brethren want starch in their knees, I am willing to adopt a resolution to strengthen them.

DR. GAINES, of Alabama, moved its reference to a committee. Carried.

REPORT ON THE AMERICAN MEDICAL LIBRARY.

The special order for 1 P.M., being the report on a plan for founding a national medical library, Dr. Toner, the chairman, read the report. The report recommended the foundation of such a library in Washington, D. C., and urged the acceptance of a proposition made by the Congressional Librarian, to take all the necessary charge of the works that might be deposited. Accepted.

After some discussion, Dr. Davis offered a resolution accepting the proposition of the librarian, and appointing a committee of one, a resident of Washington, to aid in carrying out the general design of the report.

Both of these were finally adopted.

The report of committee on Medical Education was made the special order of business for Thursday, 10 A.M.

REPORT OF COMMITTEE ON PRIZE ESSAYS.

The committee recommended the award of one hundred dollars each to Dr. S. S. Herrick, of N. O., for an Essay on Quinine as a Therapeutic Agent, and to Dr. Roberts Bartholow, of Cincinnati, for one on the Physiological Effects and Therapeutical Uses of Atropia and its Salts.

A rather unwise attempt to dispense with the award was made, but luckily it did not prevail.

A paper on Operations for Vesico-Vaginal Fistula, by Dr. Shuppert, of N. O., was presented and referred to the Section on Medicine.

A communication from Dr. H. R. Storer, of Boston, covering the action of the Gynæcological Society, in reference to the importance of diseases of women, was read by the Secretary and laid on the table.

DR. BOOTH, of Mississippi, introduced the following resolution, which was adopted:

Resolved, That the proper construction of article four, Code of Ethics American Medical Association, having been called for relative to consultation with irregular practitioners who are graduates of regular schools; therefore

Resolved, That article four, section one, Code of Ethics, excludes all malpractitioners from recognition by the regular profession.

The Association then adjourned till Thursday morning at nine o'clock.

THIRD DAY—THURSDAY, MAY 6, 1869.

The meeting was called to order by the President at 9 A.M.

DR. T. PARVIN, chairman of the Committee on the President's Address, read a report recommending the adoption of the suggestions in regard to a National Medical College. The Committee use the following language:

Your Committee express their hearty approval of this general plan, but suggest that the effort at first should be for the establishment of but a single school, as more feasible, and besides one such institution would be a model which other medical colleges might in time be induced to imitate in extent, duration, and thoroughness of teaching, and in rigidness of requirements for the degree of M.D.

We likewise desire to say, that when the details of this general plan are thrown into form, there should be the amplest security against the places and the power of such a medical college as designed ever falling into the hands of politicians or the protégés of politicians. Medicine is higher than politics, broader than political creeds and party platforms.

In conclusion, your Committee reiterate the recommendation of the President as to the appointment of a committee for the special purposes referred to.

Dr. Hibberd moved its acceptance. Adopted, and on the proposition of Dr. Davis the committee was ordered to consist of five. Dr. W. O. Baldwin, of Alabama; Dr. F. G. Smith, of Pennsylvania; Dr. D. H. Storer, of Massachusetts; Dr. E. S. Gaillard, of Kentucky, and Dr. Joseph Jones, of Louisiana, were appointed.

THE ASSOCIATION OF AMERICAN EDITORS.

DR. N. S. DAVIS announced to the Association the formation of an offshoot in the shape of an Association of Editors of American Medical Journals. The following preamble and plan of its organization, as presented by Dr. Theophilus Parvin, editor of the *Western Journal of Medicine*, had been unanimously adopted:

The editors of the medical journals in the United States, desiring to cultivate professional courtesies, to facilitate the conduct and general management of our journals, to promote their interests, their usefulness, and make them a still greater power for professional and popular good, and especially to advance the interests of medicine, hereby unite together under the following

Name—The Association of American Editors.

Purposes.—The cultivation of friendly relations, mutual assistance, community of effort and means, where practicable, in a system of receiving foreign exchanges, and of sending our own journals abroad; in urging, with hearty concert, improvements in the present system of medical education, and a higher standard of preliminary education of those who desire to enter upon the study of medicine; the collection of vital statistics; the collecting of the names of all the regular physicians in the United States, age, place, and date of graduation, if a graduate; also, the same in reference to graduation at literary institutions, if such graduation has taken place.

Meetings.—These shall be held, commencing at 10 A.M., on the day preceding, and at the place of the annual meeting of the American Medical Association.

Officers.—President, Vice-President, Permanent Secretary, and Secretary.

The President, Vice-President, and Secretary shall be elected annually, and shall serve at the meeting of the succeeding year.

Committees shall be appointed where necessary for the carrying out of any of the special purposes of the Association.

These resolutions having been signed by the following delegates: Dr. N. S. Davis, *Chicago Medical Examiner*; Dr. James M. Halloway, *Richmond and Louisville Medical Journal*; Dr. Wm. M. McPheeters, *St. Louis Medical and Surgical Reporter*; Dr. W. R. Bowling, *Nashville Journal of Medicine*; J. Berien Lindsley, *Nashville Journal of Medicine*; Dr. Greensville Dowell,

Galveston Medical Journal; Dr. Samuel Logan, *New Orleans Journal of Medicine;* Dr. S. S. Herrick, *New Orleans Journal of Medicine;* Dr. E. W. Jenks and Dr. Geo. D. Andrews, *Detroit Review of Medicine and Pharmacy;* Dr. W. S. Mitchell, *New Orleans Journal of Medicine*, and Dr. S. M. Bemiss, *New Orleans Journal of Medicine*—the officers, as follows, were unanimously elected:

Dr. N. S. Davis, President; Dr. W. M. McPheeters, Vice-President; Dr. W. S. Mitchell, Permanent Secretary, and Dr. J. Berien Lindsley, Secretary.

The following resolutions were unanimously adopted:

That a committee on foreign exchanges be appointed, to consist of Dr. Parvin, as chairman, and the Permanent Secretary.

That the Permanent Secretary be instructed to correspond with such regular medical journals of the United States as are not now represented, informing them of the objects of the organization, and inviting their co-operation.

That a committee, consisting of Drs. Bowling, Dowell, and Andrews, be appointed on the Registry of Physicians.

That Dr. Halloway be appointed a Committee on Revision.

That the President deliver at the next meeting an address on the history, progress, etc., of medical journalism in this country, and that the members of the Association furnish to him such material and information as they may be able to obtain.

That besides the members already signing the constitution, all physicians connected with regular medical journals, be considered members upon signifying, in writing to the Permanent Secretary, their willingness to subscribe to the foregoing articles of agreement, until opportunity be afforded them of signing said articles.

That the President be requested to announce to the American Medical Association the formation and objects of this Association.

That these minutes be furnished to the secular papers, with a request that they be copied.

That Dr. Halloway be appointed a committee to arrange a general plan of commutation between medical journals.

That the Committee on Exchanges be instructed to arrange some general plan for the establishment of agencies in all the principal cities.

The matter was, on motion, referred to the Committee on Publication.

A report of the Committee on Medical Education was next read by its chairman, and adopted.

DELEGATES TO THE BRITISH MEDICAL ASSOCIATION.

The following gentlemen were appointed delegates to the British Medical Association:

Dr. N. Pinckney, United States Navy; R R. McIlvain, Ohio; J. F. Hibberd, Indiana; B. Lindsley, District of Columbia; G. C. Blackman, Ohio. To the Canadian Medical Association: Dr. Alden March, Albany, New York.

Drs. Sayre, New York; Toner, District of Columbia; Askew, Delaware; Arnold, Georgia; McCluskey, Alabama, were appointed Committee on Ethics.

OFFICERS-ELECT FOR 1870.

The Committee on Nominations reported the officers of the Association chosen for the year 1870:

For President—George Mendenhall, Ohio.

For Vice-Presidents—Warren Stone, Louisiana; Lewis A. Sayre, New York; F. Gurney Smith, Pennsylvania; John S. Moore, Missouri.

For Assistant Secretary—William Lee, District of Columbia.

For Treasurer—Caspar Wistar, Pennsylvania.

For Librarian—Robert Reyburn, District of Columbia.

Committee of Arrangements—Thomas Antisell, chairman; Robert Reyburn, C. N. Ford, L. W. Ritchie, W. J. C. Duhamel, D. R. Hayner, C. F. Nally.

Committee of Publication—F. Gurney Smith, Pennsylvania, chairman; W. B. Atkinson, Pennsylvania; A. J. Semmes, Georgia; Robert Reyburn, District of Columbia; Caspar Wistar, Pennsylvania; H. F. Askew, Delaware; William Maybury, Pennsylvania.

Committee on Medical Literature—J. J. Woodward, United States Army, chairman; W. H. Anderson, Alabama; Theophilus Parvin, Indiana; Hosmer A. Johnson, Illinois; C. W. Parsons, Rhode Island.

Committee on Prize Essays.—Grafton Tyler, District of Columbia, Chairman; N. R. Lincoln, District of Columbia; N. R. Smith, Maryland; G. W. Miltenberger, Maryland; W. R. Dunbar, Maryland.

Committee on Epidemics.—Add the following to fill vacancies: J. K. Bartlett, Wisconsin; J. B. Jackson, Kentucky.

Committee on Education.—T. G. Richardson, Louisiana, Chairman; E. W. Jenks, Michigan; E. J. Gaillard, Kentucky; W. M. McPheeters, Missouri.

Time for meeting, in Washington, first Tuesday in May, 1870.

A recess of fifteen minutes having been taken, Dr. Smythe, House Surgeon of Charity Hospital, presented and explained a case of ligation of the arteria innominta and common carotid of the right side. The operation was made five years ago, and is the only successful case on record.

THE DUTIES OF PHYSICIANS TO EACH OTHER.

Dr. Herrick, of Louisiana, moved an amendment to the Code of Ethics on the duties of physicians to each other and to the profession at large.

Article 1.—Duties for the support of professional character.

Proposed amendment, additional section, and section five:

The spirit of trade and of gain from merchandise should by all means be dissociated from the practice of a liberal profession, and it is important that practitioners should not allow their pecuniary interests to compromise their duties to their patients. Therefore, in cities and other communities where the services of competent apothecaries can conveniently be obtained, physicians should resign to them the whole business and profits of dispensing medicines.

The subject lies over till next year.

Dr. Davis submitted a report on some propositions, etc., from State societies. Adopted.

Dr. Chaillé, of La., from the Committee on Nomenclature, also offered a report favorable to the original resolution, which was accepted and referred to the Committee on Publication.

The Committee on the Nomenclature of Diseases have the honor to report that it has examined the "Provisional Nomenclature of the Royal College of Physicians" of London, and is of the opinion that it is desirable for this Association to recommend and adopt the same for general use in this country, with such modifications as, on deliberate consideration, may appear to be necessary. The following resolutions are, therefore, submitted:

1. *Resolved*, That a special committee of fifteen be appointed by the President to take this subject into deliberate consideration, and to report at the next an-

nual session what alterations, if any, are necessary to adapt the proposed nomenclature to general use in the United States.

2. That this Committee be authorized to fill up any vacancies which may occur upon it.

3. That the Committee on Publication be authorized to publish, for general distribution, one thousand copies of the English and Latin portions of this nomenclature, under the designation of the Proposed Nomenclature, prefacing the same with such remarks as may be deemed necessary to secure the criticism and co-operation of as large a number of American medical men as practicable.

4. That the committee hereby appointed be directed to draw the attention of the Surgeon General of the Army, of the Chief of the Bureau of Medicine and Surgery of the Navy, and the Superintendent of the Census, to the question of their official adoption of the proposed nomenclature; to invite them to appoint whom they see fit to represent them on this committee; and to solicit such co-operation as may be necessary to accomplish the purpose desired, viz: the final adoption of such nomenclature and classification as will receive the conjoint approval of the official medical bureaus of the government and of the general profession.

Committee—S. E. Chaillé, Louisiana; J. J. Woodward, United States Army; A. B. Palmer, Michigan; F. G. Smith, Pennsylvania; J. F. Heustis, Alabama.

The following committee of fifteen was appointed:

Francis G. Smith, chairman; J. J. Woodward, U. S. A.; R. F. Michel, Alabama; A. B. Palmer, Michigan; S. E. Chaillé, Louisiana; L. P. Yandell, Jr., Kentucky; Austin Flint, New York; Alonzo Clark, New York; Geo. B. Wood, Pennsylvania; H. S. Dickson, Pennsylvania; E. Jarvis, Massachusetts; Theo. Parvin, Indiana; W. M. McPheeters, Missouri; E. M. Snow, Rhode Island; N. Pinkney, U.S.N.

An invitation was tendered the Association from the corporation of the Mobile and Ohio Railroad to such members as desired to return over that route; also from Capt. Neal of the steamer Richmond, to make an excursion to Carrollton. Both were accepted with the thanks of the Association.

UNIFORM RATES OF COLLEGE FEES.

Dr. Gaillard submitted the resolution for a uniform rate of college fees; one hundred and twenty dollars being named as the minimum.

Dr. Sayre, of New York, was decidedly opposed to cheap medical colleges, and was fearful that the adoption of the resolution would encourage laxity. Understanding, however, that there was no prohibition to the increase of fees, he withdrew his objection.

Dr. Logan, of Indiana, proposed to make the minimum one hundred and forty dollars.

The amendment was opposed by Dr. Mussey, of Ohio, on the ground that the fees of the Ohio colleges had to be equalized with those of the Michigan colleges. The location of a college made a good deal of difference in the cost of living. He believed that some colleges could afford to receive only eighty dollars, while others could not get along inside of a fee of one hundred and forty dollars.

Dr. McPheeters, of Missouri, favored the original resolution without amendment.

Dr. Palmer stated that the college of Michigan was allowed a donation from the government of two townships of land, and that it could thus maintain itself with moderate fees. The college was willing to put up the fees for students from other States to one hundred and forty dollars, if the same requirements were made from other students. Under the law of the State of Michigan students from that State were allowed the benefits of the institution free of charge.

Dr. Davis, of Illinois: I do not object to discuss the fees, but I do claim that it is out of place to advertise the superior claims of State colleges here. We have had no more illiterate students in our Illinois college than have come to us after one course in the University of Michigan!

Dr. Parvin, of Indiana: I move to amend by striking out one hundred and forty dollars and inserting one hundred dollars. If we make the fees of colleges uniform, the next step will be to make the fees of practitioners uniform, the same in villages of the West as in the city of New York, and that is not equitable or practicable.

The amendment of Dr. Parvin was then put, and was lost.

The resolution was then amended to read as originally, one hundred and twenty dollars as the minimum collegiate fee, and was thus adopted.

On motion, there was appointed a special committee on the relative advantages of Syme's and Pirogoff's mode of amputating at the ankle—D. G. A. Otis, U.S.A., chairman, and Dr. J. D. Holloway, of Louisville, Ky.

Dr. Bemiss presented from Dr. John Waters, of St. Louis, Mo., a paper on the Doctrine of Forces—Physical and Vital.

PRELIMINARY EDUCATION.

Dr. A. M. Pollock, of Pennsylvania, offered this amendment to the constitution:

Resolved, That all county medical societies shall be required to elect a committee annually, whose duty it shall be to examine all applicants for admission as students under the tuition of its members, and that no member of any county medical society shall receive any such applicant until such applicant shall present a certificate from said committee testifying that he has a good English education, and a sufficient knowledge of Greek and Latin to enable him to pursue his studies with advantage.

Laid over under the rules.

Dr. Toner, D. C., moved that a committee on variola be appointed—Dr. Joseph Jones, chairman. Adopted.

Dr. Pinckney, U.S.N., made statements respecting relative grades of rank. The paper was ordered on the minutes.

Dr. Toner: That the paper on Albinism, by Prof. Joseph Jones, of New Orleans, which had been referred to the Smithsonian Institution for publication, be placed in the hands of the Committee on Public Education. Carried.

Dr. Davis moved the reference of another paper, by the same author, to the same committee, which was also carried, notwithstanding the statement that there were only $900 in the treasury.

HOMŒOPATHY UNDER DISCUSSION.

Dr. Palmer offered a resolution forbidding consultation with persons professing to practise a certain exclusive system, and providing for a committee of seven to report thereon at the next meeting. He defined his object to be a calm report upon homœopathy. Adopted.

Dr. McPheeters moved a reconsideration, stating as his reason that such a report would be undignified. Carried.

Dr. Palmer, of Michigan: If facts can be placed before the public as to what homœopathy is, it will have an effect, a wonderful effect. If not, we shall have enough of it yet. If we keep silent, and do not expose it, the error will make progress.

Dr. McPheeters, of Missouri: You cannot reason the people out of homœopathy, since it was never rea-

soned into them. Do not dignify the system by a separate report on it.

Dr. Palmer, of Michigan: The discussion of the subject in Michigan led to the repeal of the law of the State authorizing its study in the university. The humbug need only be exposed to be condemned.

Dr. Bartlett, of Wisconsin, was opposed to the consideration. He thought that its errors might be exposed in Michigan or any other State, but it should not be discussed here.

Dr. Hibberd, of Indiana: A notice of this subject by this Association will give notoriety to homœopathy.

Dr. J. Helmick, of Ohio: You need not think that a notice of homœopathy by this Association will give it notoriety. It has got notoriety, and as great a notoriety as the regular system of practice. If we say that we are afraid to denounce homœopathy, that gives it a notoriety. This Association is opposed to all systems that are contrary to the regular mode of practice. Hundreds and thousands of your patrons know nothing about homœopathy, but they employ homœopathists.

After some more discussion the resolution was rejected.

The Association then adjourned until nine A. M. on Friday.

Fourth Day—Friday, May 7, 1869.

The meeting was called to order by the President.

Prof. Joseph Jones exhibited some very interesting specimens of pathology, anatomy, and natural history. At the close of the presentation an appropriate vote of thanks was tendered to the distinguished speaker.

The reports of the various sections were then received in their order, and severally referred to the Committee on Publication.

Resolutions of Thanks.

Dr. F. G. Smith presented the following, which was received with applause and unanimously adopted by the members standing:

Resolved, That the thanks of this Association are justly due and are hereby tendered to the President for the uniform kindness and courtesy with which he has presided over the deliberations, and to the Committee of Arrangements, the physicians and citizens of New Orleans, for the generous hospitality and fraternal kindness with which we have been received and treated during our sojourn in their city, with the assurance that this visit will always be among the brightest and most enduring of our lives.

Resolved, That we also present our thanks to the various railroad and steamboat companies, who have so liberally extended to us facilities of transportation; and to the daily press for their efficient aid in reporting the proceedings of this meeting.

The following names were added to the *Committee of Correspondence with State Medical Societies:* Dr. N. S. Davis, Illinois; J. S. Weatherly, Alabama; J. M. Toner, District of Columbia.

To the *Committee on Canadian Medical Association:* H. F. Askew, Delaware; R. Miller, Alabama; J. M. Bush, Kentucky; N. S. Davis, Illinois; Riggs, Alabama.

To the *International Medical Association:* Dr. W. J. C. Duhamel, District of Columbia; Jos. Berney, Alabama; E. L. Jones, New York; B. F. Dawson, New York; Joseph Jones, New Orleans.

To the *British Medical Association:* F. A. Ross, Alabama.

Delegate to *Association of Superintendents of Insane:* Robert Reyburn, District of Columbia.

On motion of J. P. Moore, of Mississippi, the following preamble and resolutions were adopted:

Whereas, the contract system is contrary to medical ethics;

Resolved, That all contract physicians, as well as those guilty of bidding for practice at less rates than those established by a majority of regular graduates of the same locality, be classed as irregular practitioners.

A good quantity of minor business was then disposed of, after which Dr. W. O. Baldwin, the retiring President, appropriately thanked the members for their courtesy to him as their presiding officer, when the Association adjourned to meet at Washington, D. C., on the second Tuesday in May, 1870.

A great many of the members afterwards started on the Laura, on an excursion to the celebrated Lawrence Plantation at Magnolia. This trip was the feature of the entertainment, and every one was sorry when it was over. The Committee of Arrangements well deserved the heartfelt thanks tendered to them on their return trip.

Progress of Medical Science.

To Disguise the Taste of Cod-Liver Oil.—The flavor of cod-liver oil may be to a great extent obviated in the following manner:—If we take the fish oil, spread it on toast, and grate over it a little smoked salmon, herring, or even ham, it may be eaten with no more effort than the salt mackerel which forms the standard dish of thousands of families.—*Pacific Med. and Surg. Journal.*

To Prevent Coagulation of Blood during Transfusion.—Dr. J. Braxton Hicks (*British Med. Journal*) accomplishes this by a solution of the phosphate of soda mixed with the blood as it flows from the supplier. The greatest danger in the operation is thus avoided, while the solution is in no degree incompatible with the normal qualities of the blood.

Ice in Affections of the Testicle.—Diday (*The Annales*) employs ice in some of the affections of the testicular apparatus: 1st. In orchitis, sometimes complicated by blennorrhagic epididymitis, he finds it serviceable; 2d, In testicular neuralgia: 3d, In certain states in which pain constitutes the predominant feature.

When to Trephine.—M. Chassaignac (*L'Union Médicale*) advocates *trephining* in only two conditions: 1st. When there is a lesion situated in a definite spot, the seat of which lesion is fully ascertained, and the effects of which may be suppressed by trephining; 2d. When there are dilated pupils, with symptoms of general compression, which symptoms are tending infallibly to produce death.

Recovery from the Passage of an Iron Bar through the Head.—Most of the older practitioners will recollect the following celebrated case, published by Dr. J. M. Harlow, in the *Boston Medical and Surgical Journal*, in November, 1848, and afterwards by Dr. Henry J. Bigelow, in the *American Journal of Medical Sciences* for July, 1850: A man by the name of Gaze, from the accidental explosion of a charge of blasting powder, had a tamping-iron, three feet seven inches long, one and a quarter inches in greatest diameter, and thirteen and a quarter pounds in weight, driven through his head, which was withdrawn by a fellow-workman. The accident occurred in Cavendish, Vermont, on the 13th of September, 1848. The subject of this accident was residing in California when he died, which was on the 18th of May, 1861; between twelve and thirteen years having thus intervened between the date of the injury and his decease. The cerebral organism was comparatively little disturbed by its abrupt and intru

sive visitor. During a short period before his death he had several severe convulsions.

Dr. Harlow had the enterprise to obtain the cranium and the iron bar; and having exhibited them at the last annual meeting of the Massachusetts Medical Society, has most generously presented them to the Museum of the Medical Department of the Harvard University.

ANOMALIES OF THE OPTIC THALAMI.—According to Serres, anomalies in the optic thalami, and, according to Breschet, troubles of the anterior cerebral lobes, do not necessarily produce blindness.

SUBCUTANEOUS CONDYLOMA.—According to Dr. Teisse, the so-called subcutaneous condyloma is a monstrous hypertrophy of the cellular portion of the follicle.

FIBROUS TUMORS IN PREGNANCY.—M. Blot believes that fibrous tumors increase in size during pregnancy, and diminish after labor.

EPILEPSY INDUCED BY SECTION OF THE SCIATIC NERVE.—Prof. Brown-Séquard alluded recently, in the Paris Academy, to the fact that section of the sciatic nerve induces epilepsy when the face is irritated at a certain point.

LUXATION OF THE HIP IN A YOUNG BOY.—Dr. Tuck (*Boston Med. and Surg. Journal*) recently related a case of dislocation of the right hip upon the dorsum ilii, occurring in a healthy boy six and a half years of age. He was playing horse and fell, his companion falling upon him. The usual shortening of the limb and turning in of the toes were present. The head of the femur could be plainly felt upon the dorsum ilii. Ether was given, and reduction was easily effected by manipulation. This accident is noteworthy from the rarity of its occurrence in children.

EXPLANATION OF THE SEXES OF TWINS.—Dr. Brunton recently came to the conclusion that, if a male ovum came down from each ovary at one and the same time, conception taking place, we had twins of opposite sexes—male and female—and this pointed to the function of the ovary, viz., that probably the ova cast off from each ovarium are alternately male and female—or, in other words, each ovary casts off at one and the same time a male, or each a female ovum. From his own experience in the management of seventeen cases of twins, in no case were the twins of the same sex in one bag of membranes.

ANTISEPTIC SURGERY.—DR. WEISSE, in the course of his practical illustrations of Mr. Lister's treatment before the County Medical Society (for his paper, there read, see MEDICAL RECORD, April 1, 1869, p. 52), mentioned, among other points, that vomiting sometimes follows the application of the stronger solutions of carbolic acid to large wounds, as observed by both English and continental surgeons.

DR. SQUIBB regretted that Mr. Lister, with his characteristic enthusiasm, had so exaggerated the virtues which might justly be claimed for the so-called carbolic acid, and had so needlessly complicated the methods of its application. He had, moreover, given exclusive preference to the crystallized "acid" (phenol), which, for commercial reasons, Mr. Calvert had brought so prominently before the public, although, for all purposes of disinfection and local application, this was decidedly inferior to the ordinary creasote of the shops (a mixture of phenol, cresol, xylol, and perhaps one or two others of the series, the cresol predominating), which had also the advantage of being much cheaper. Simple watery solutions of creasote, sufficiently dilute, applied on old linen or muslin, would doubtless serve every purpose of Mr. Lister's putties and plasters. For burns, both to allay the pain and to promote healing, nothing compared with such a solution, containing about one-half of one per cent. of creasote. If much stronger, it would not only fail to relieve, but would intensify, the pain. The pain due to a strong application, while exactly resembling that of a burn in character, might be distinguished from it by this: that it is increased by elevating the part so as to drain it of blood, diminished by allowing the blood to flow into it; of the pain of a burn the reverse is true. Mr. Lister must unquestionably have done much harm with his stronger applications. He had begun with using the simple deliquesced crystals, and the two per cent. solution he now employed was still too strong for most purposes.

In response to questions from Dr. Jacobi and others, Dr. Squibb remarked that the most prominent effect of a strong solution of carbolic acid upon healthy tissue was to coagulate its albumen, and this done, the tissue was dead and become a foreign body. It was a curious question what had become of such devitalized tissue, sealed up by Mr. Lister in his early operations—for it had been his custom to smear the pure acid all about within the wound. We could look for absorption of coagulated albumen only after its digestion; and we had no account that Mr. Lister had introduced pepsine along with the acid! Most probably the dead material became encysted, like other foreign bodies. This property of carbolic acid explained how it so often injured, by rendering opaque, the anatomical specimens it was meant to preserve. For delicate specimens, an aqueous solution should contain considerably less than one per cent. of the "impure" acid (common creasote); perhaps one-fourth of this strength would be nearly correct.

DR. JACOBI could strongly endorse the remarks of Dr. Squibb, from an extensive use of carbolic acid upon both living and dead tissues. To its coagulating power was due its happy effect upon diphtheritic exudations. A ten per cent. solution would rapidly shrivel up a croupous membrane; and this strength would destroy, instead of preserving, healthy tissue. In his early experiments he had caused perforation of the cornea in five or six hours, in a case of diphtheritic conjunctivitis, by a very slight application to the conjunctiva of one part of the acid to eight or ten of glycerine and water. In puerperal endometritis he had washed out the uterus with a solution of three or four grains to the ounce of water, with excellent effect. For very bad cases intra-uterine injections might be used of five times this strength; but they must be carefully thrown directly into the uterus, and the vagina must be immediately washed out with a weaker solution.

DR. ELLIOT related the effect of carbolic acid disinfection, together with the careful employment of all other hygienic means, in freeing from puerperal fever the lying-in wards of Bellevue Hospital.

A CURE OF CATARACT WITHOUT OPERATION.—Dr. Travignor has communicated to the Paris Academy of Medicine a method by which cataract may be cured without an operation. It consists in applying to the diseased eye a phosphureted collyrium, which operates by gradually restoring the transparency of the crystalline lens, from the circumference to the centre, which is the last to yield. The formula is as follows: Oil of sweet almonds, 30 grammes; phosphorus, 10 centigrammes; dissolve in a water bath at 80 deg. centigrade, in a close and full vessel. Three or four times a day 4 grammes of this solution should be instilled between the eyelids of the diseased organ, continuing to do so for several months.—*The Medical Mirror.*

TREATMENT OF ACUTE RHEUMATISM.—Dr. Chadwick, of the Leeds General Infirmary, after much experience and a vast variety of changes, now relies upon bicarbonate of potash, in twenty-grain doses every four hours, and keeping the patient in blankets, in cases of rheumatism. The only difficulty he finds, is some symptom or rule when to cease the administration of the remedy. The change from the sour perspiration and the alkaline condition of the urine may point to a less frequent administration, but does not warrant him in changing it altogether. Since he adopted the "sleeping in blankets," he believes he has had less endocardial and pericardial complication. His colleagues pursue a practice almost analogous.—*Medical News.*

TREATMENT OF SCARLET FEVER.—Dr. Charles T. Thompson reports in the *Lancet* his manner of treatment in *scarlet fever* as follows: The patient is immersed ina warm bath in the early stage of the disease, and this is repeated frequently, or as often as the strength of the patient will allow. The first effect is to produce a soothing and refreshing feeling in the patient, to be followed soon by such an eruption on the surface, of so vivid a color, and in such amount, as would astonish those who have never witnessed it. Thus one of the greatest dangers of this fearful disease—the suppression of the eruption—is escaped.

The appetite generally returns after the first or second bath, and the strength of the patient is kept up by nutritious food. The bath prevents the dissemination of the disease, by removing the excreta from the skin as soon as it is deposited. This treatment promotes cuticular desquamation.

The body should be gently dried by soft linen cloths after the bath.

By this procedure the various secretions are deprived of their noxious properties, and the irritation of internal organs is quickly relieved, thus dissipating infection. Another benefit is that a very serious case is soon reduced to a mild one, and the patient recovers in less than half the usual time. Since Dr. Thompson has pursued this practice—during the last fifteen years—he has never lost a patient from scarlet fever.

ALKALINE TREATMENT OF RHEUMATISM.—The *Practitioner* for March contains an able argument by Dr. H. W. Fuller, in favor of the alkaline treatment of rheumatic fever, as advocated by him in 1852. He publishes a number of cases showing that the judicious use of alkalies affords speedy relief, mitigates the severity of the disease, and effectually protects the heart from mischief. Dr. Fuller administers an ounce and a half of the alkaline carbonates, either with or without vegetable acids, during the first twenty-four hours. If the bowels are torpid he gives at the same time ten grains of colocynth and calomel pill at bed-time. The urine usually becomes alkaline in twenty-four hours, and the quantity of alkali is then reduced one half daily until the fourth day, after which barely enough is given to keep the urine neutral. Cinchona or quinine are given after the fourth day, and aperients if necessary. The diet is restricted to beef-tea, milk, and soda-water, and all solid food is absolutely forbidden, as also wine and spirits, though the latter are considered less hurtful than solid food. Opium is very rarely administered. The patient is kept tolerably cool, and within a week or ten days is almost invariably convalescent, and often anxious to leave the bed. The smallest quantity of solid food given before the tongue has cleaned will often cause a relapse.

ALOPECIA.—Waring mentions that in alopecia, a serviceable liniment is made by adding to a certain quantity of olive oil as much nitric acid as will make it pungent, but not acrid.

TREATMENT OF HEMORRHOIDS.—Dr. Houston, of Dublin (*The Journal of Materia Medica*), recommends the application of strong nitric acid to bleeding piles, but particularly to that soft, red, strawberry-like elevation, which he names vascular tumor of the rectum, and which the acid removes, by the production of a slough of its surface. To insure the full effect of the caustic, the parts should be dried, and cleared of all mucous, and other adherent fluids. The pain is sharp and burning at first, but subsides in two or three hours. If the tumors be old and firm, a second or third application may be required.

TREATMENT OF ICHTHYOSIS.—M. Lailler pronounces internal medication in ichthyosis absolutely useless, and depends entirely on washing with soap and water three times a week, and the application of pure glycerine prepared with starch.

UNUSUAL EFFECT OF SUBCUTANEOUS INJECTION. — F. Woodhouse Braine, F.R.C.S. (*Medical Times and Gazette*), relates the following case:—

A married lady, aged 35, in good health otherwise, had been kept awake for seventy-two hours by intense neuralgic pain on the left side of the head, face, and neck, arising from a carious molar tooth on the left side of the lower jaw. One-third of a grain of acetate of morphia was injected subcutaneously. The morphia was dissolved in about four drops of water, and was introduced under the skin of the left arm, just over the insertion of the deltoid. No blood appeared at the puncture. In about fifteen seconds, tightness of the chest and difficulty in breathing was complained of, and the patient asked to be raised, saying she felt as if she was dying. Her face and lips now became pale; speech became indistinct (not inaudible); pulse irregular; some spasms of the facial muscles took place, and she fell back to all appearances dead. Cold water was freely dashed over face and chest, and, as she was unable to swallow, her tongue was rubbed over with sal volatile, and ammonia applied to her nose, artificial respiration being kept up at the same time. During this time her face was blanched, pulse not to be felt, and respiration not to be perceived. Insensibility continued for about three minutes; then, happily, one or two feeble beats of the pulse, and a shallow inspiration or two, showed returning animation. She then became conscious; pulse feeble, but regular; respiration slow; fingers remained numbed, and thumbs were firmly drawn into the palms of the hands. This passed off in about six minutes, leaving her feeling very ill, but free from neuralgic pain, which did not return. There was no feeling of nausea, and no attempt at vomiting during any part of the time.

ETHERIZATION IN THE OPERATION OF TRACHEOTOMY FOR MEMBRANOUS CROUP.—Dr. Amory (*Boston Med. and Surg. Journal*) informs us that in the Hôpital des Enfans Malades the operation of tracheotomy for membranous croup is never performed with the administration of ether. As a reason for this, the oxidation of the blood was prevented from a deficiency in the supply of air to the lungs, thus producing analgesia. He has seen the operation performed in that hospital as often as six times, and always without the use of any anæsthetic. In these cases the children offered no resistance, and seemed to suffer no pain. Of these six cases, four entirely recovered; and in the other two the operation was merely undertaken to mitigate the sufferings of the patients.

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New York, June 1, 1869.

THE RECENT MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

THE recent meeting of the American Medical Association in New Orleans was distinguished by the passage of some resolutions which must have an influence in adding to the dignity of our profession. True to its interests, this body still shows a determination to agitate the all-important question of improving the system of medical education, with the end of seeking that reform which shall compel the possession of higher acquirements on the part of those who shall receive the doctorate. Although the fact is patent to every interested party, that very little (if any) progress has been made towards the desired end, there are still to be found members who are determined not to grow weary in the struggle for the interests of medical schools. The events of the past ten years have forced the conclusion upon the profession, that the blame of many of the evils now existing in our college system is not due so much to the student as to the teachers themselves. The disgraceful rivalry of pecuniary interest seems to forbid the taking of any initiative as to a change; and while each school is loud in its denunciations as to the mote in the neighbor's eye, their own beam still remains in all its hideous deformity, generously overlooked. So far does this jealousy extend, that a free discussion upon the subject of medical education is trammelled by an insinuation that some of the speakers only occupy the floor for the sake of advertising their respective schools. Despite all these, we must not be disheartened. There is yet a reward. It may be distant, it is true, but it will come to those who labor in the cause without prejudice and without fear, or expectation of personal favors.

The suggestions thrown out by the President of the Association, referring to the practicability of establishing national medical colleges, under the direct patronage of the Federal Government, are deserving of attention. There is no doubt in our mind that this would be the best and most radical means of changing our present system, provided we could properly start it and keep it up. It is to be feared, however, that the very nature of our Republican form of government forbids it. There is no such thing as a centralization of power which shall be sufficiently strong and lasting to enable us to do much more than wish for what we must not of necessity obtain. If the Government has a certain control of the institution, politics must creep in, despite our wishes to the contrary. The many-headed who control the balance of power are fickle, unreasonable, and stubborn, and are just as likely to favor the enactment of laws to provide for the admission of all sorts of quacks and pretenders to the high places as to secure them for honest and capable men. Unfortunately for us, the people are not all of our way of thinking; they are so wedded to their "pathies" and their "isms," that we seem as if we must place ourselves in the forlorn hope to storm their castle of ignorance. The disposition of the Government to be impartial would seem to forbid the centring of its influence and patronage into a system that has many bitter and determined enemies.

A more feasible plan, it seems to us, would be to do away with any hopes of patronage from the Government, until such time as the governing classes shall be educated to the point of distinguishing the true from the false system. Until then, it strikes us that we might content ourselves to establish these national colleges under the auspices of the Association itself, with charters from the Federal Government, and trust to time and a better opportunity than now presents itself for a fuller recognition on the part of the authorities at Washington. The proposed model of such colleges, as advised by Dr. Baldwin, would doubtless leave very little (if any) room for objection; and when they had a firm footing the patronage of students would be sufficiently large to enable the trustees to establish an ample fund for regular remunerative salaries to the professors. Instead, then, of quarrelling over fees and the like, the teachers could devote their attention to the legitimate objects for which they were chosen, and could, besides, afford to be thoroughly impartial in their examinations. The reputation of these institutions would soon be sufficiently great to draw ambitious students from the so-called "one-horse colleges," which would sink into a deservedly ignominious death.

As the case now stands, an effort will be made by a well-chosen committee to attempt the carrying out of the propositions of the President; and, despite our conviction to the contrary, we cannot but hope that they will be successful in their endeavors. If they do accomplish what many will expect of them, nothing will be left to be desired, and we shall then gladly acknowledge ourselves as being premature in our present opinion. It is right and proper to wish them God-speed unde rany circumstances; but we fear we shall have to trust more to their good luck in managing their cause than to any weighty arguments in support of its merits. Time, after all, must solve the question.

Another move in the right direction was the passage

of a resolution to compel each State Society to furnish a registry of regular physicians within its precincts. We have it clearly defined by a resolution, adopted also at this meeting, in what consists a regular practitioner; and very little trouble will be necessary to make up a list. We have seen the good effects of such a registry in our own and other cities, and it is reasonable to expect that a proportionate amount of benefit may be derived from the canvassing of more extended districts.

Again: A medical library of a national character, and under the control of the Association, is to be a thing in reality. This has long been needed, and we rejoice with all friends of progress in our ability to make the assurance that the carrying out of details is in the hands of an eminently competent committee. Our readers will see from the report, that the collection will at first nestle under the protecting wings of the congressional library, the librarian of which has kindly taken upon himself the proper care of the volumes after they are deposited by the Association.

Another new thing is the formation of an Association of Editors of Medical Journals, which will doubtless be productive of much good to the parties concerned. Its main object is seemingly to elevate the tone of medical journalism, something which is very much needed over many parts of the country. We hope that its good works will be manifest in the creation of an independence of opinion on the part of many of our brethren of the quill who have been content to control mere college organs. Its officers are principally Western men; and as the fashion is to consider such the only real friends of progress, we have much to expect. Although the appointment of Permanent Secretary was a most excellent one, we regret that his office is not more central.

The advertising by specialists came up for a deserved rap, which should be felt the more from the fact that the ill-feeling between the "generals" and "specials" was not so apparent as formerly. As the respectable "specials" do not advertise, they should be careful to ignore all others who claim to be of their number who do, and not fight the "generals" for the sake of being pugnacious.

The proposition to examine into and report upon the merits of homœopathy, it seems, met with no favor, although the gentleman who offered it was well known as a careful, judicious, and conscientious observer. There is no need of any further conviction concerning homœopathy among medical men, and it would be folly for any self-constituted committee to appeal to the public and attempt to persuade them to their way of thinking, especially when it is known by the said public that they sit in judgment on a question upon which they have virtually declared they can think only in one way. The surest way of disposing of this matter is to educate the people to the point of being able to discriminate for themselves.

Many of our readers will be surprised at the question propounded by a medical society of the South-west in regard to the right of an "old practitioner" to membership, who confessedly practised homœopathy along with the regular system. They will not, however, be astonished at the prompt disposal of the matter by the Association. This event, it strikes us, affords a reason not only why the societies should establish registers, but that the bodies themselves should prove to the Association that they are capable of making the necessary discriminations.

The attempt to dispense with the award of the prizes to the successful candidates was ill-advised. Any one who devotes himself to original research, and furnishes an elaborate essay as the result of such labors, expects something more than empty honors. It pleased us that the motion was lost. If it had been otherwise, it would have dampened the ardor of many a future writer, and, in the end, the Transactions would be still more barren of valuable papers. A successful competitor may decline to receive the pecuniary part of the award, but the Association should not declare itself too poor to give him a chance to make the offer.

There were many other matters of minor import which were disposed of by the Association, but as these are all contained in our report we need not lengthen our remarks by any special reference to them.

Socially the meeting was everything that could have been anticipated even of the old-fashioned southern hospitality. The delegates were received by the Committee of Arrangements with open arms; the heart was made glad and the stomach was refreshed. Although these two organs are, anatomically, very near together, the sensations of one were not mistaken for those of the other.

Joseph M. Toner, M.D., of Washington, D. C., is hard at work in collecting materials for a Biographical Dictionary of Deceased American Physicians. It is his intention to have it contain a reliable sketch of every deceased medical man of regular medicine, from the earliest settlement of our country to the present time. Relatives and acquaintances of deceased physicians are requested to forward any information which they may possess to No. 350 Pennsylvania Avenue, Washington, D. C.

Hypertrophy of the Mammæ.—M. Marjolin reported recently to the Académie de Chirurgie (*Gazette Hebdomadaire*), the case of a young girl, aged 16 years, who applied to him on account of enlarged breasts. He diagnosticated simple mammary hypertrophy. In spite of systematic compression and the internal use of iodide of potassium, the enlargement increased rapidly. There were no kernels in the axillæ, and the general health was good. Two small ulcerations formed on the right nipple and slowly discharged. The breast measured fifty-three centimetres in circumference at its largest part, and became pediculated. It weighed, when removed, one kilo., three hundred and ten grammes. The left breast slowly diminished.

Reviews and Notices of Books.

THE STRUCTURAL LESIONS OF THE SKIN: their Pathology and Treatment. Illustrated. By HOWARD F. DAMON, A.M., M.D.; Fellow Mass. Med. Soc.; Admitting Physician to Boston City Hospital, and Physician to Department for Treatment of Skin Diseases among Out-patients; Author of Photographs of Skin Diseases, the Neuroses of the Skin, etc., etc. Philadelphia: J. B. Lippincott & Co. 1869. Pp. 255, 8vo.

DR. DAMON has already taken his place among the few laborers in the field of cutaneous pathology in our country, and promises to be an industrious, and we trust will prove a successful one. In the work before us he presents structural lesions of the skin under the heads of Hypertrophy, Atrophy, and Pathological New-formations.

Under the first head we have hypertrophies of the epiderma and papillary layer, including callus, corns, cutaneous horn, ichthyosis, wart, and condyloma; also hypertrophy of the sudiferous and of the sebaceous glands, including in the latter molluscum and corn; then of the blood-vessels, and tegumentary tissues generally, including the different forms of nævi and dermoid cysts; and then, of the nails, hair, and the pigment.

Under the head of Atrophies we have atrophy of the papillary layer of the derma, nails, hair, and pigment.

The Pathological New-formations include fibromas of the skin, under which head are arranged lupus, keloid, Elephantiasis Arabum, and E. Græcorum, sclerema, and morphæa, or vitiligo; and next in order lipomas, epitheliomas, and melanomas of the skin, and osteoids or calcareous deposits in or upon the skin.

We have enumerated these different topics to show the range which the researches of our author have taken. As he properly remarks, the structure of the skin is affected, either temporarily or permanently, in nearly all diseases of the skin, and the change from a normal to an abnormal condition is not an abrupt one; the nutrition being first affected, then the functions, and finally the structure, a point which should always be borne in mind, and which is too often not sufficiently appreciated in practice.

It is proper to state that authors do not agree as to what, in every case, should be classed under the head of pathological new-formations, and what under that of hypertrophies, as in the case of condylomata, which Wedl and Virchow place under the former head, while Follin and Förster regard them as papillary hypertrophies, where we agree with our author in thinking they ought to be placed.

After a brief notice of these different lesions in his introduction, our author describes them, more or less minutely, in the order in which they have been mentioned, embracing quite a full account of "Addison's disease," which seems to us to have a doubtful claim to be placed among structural diseases of the skin; the more especially, that of 202 cases of that disease quoted by him, in more than one-quarter there was disease of the supra-renal capsules without change in the color of the skin. Indeed, we cannot appreciate the propriety of classing pigmentary alterations of the skin, as a whole, among structural lesions, nor of placing them among hypertrophies, as he has done. Dr. D. thinks that the deposition of pigment in the skin, under certain physiological and morbid conditions of the economy, depends upon the influence of the ganglionic nervous system, and especially of those portions which constitute the semilunar and solar plexus; and it is to demonstrate this view that he has been led to devote so much time and space to Addison's disease, the pathology of which is yet so obscure. He considers this disease as a neurosis of the sympathetic or ganglionic system of nerves.

In addition to his description of cutaneous horns in their proper place, Dr. D. has added an appendix, with "Brief Histories of Human Horns, from 1599 to 1869," occupying over thirty pages of rather close print—a subject more curious than practical—such excrescences being of rare occurrence, of easy diagnosis, and simple in their mode of treatment.

The microscopical elements of ichthyosis are given from the examination of a case under his own care, which was congenital, and the patient ten years old, and are minutely detailed. He says that the scales of this disease are not imbricated, strictly speaking, as is asserted by some writers, but are separated from each other by deep furrows, which extend down into the derma. They may, however, overlap each other, if subjected to much pressure.

Dr. Damon, as we have seen, places lupus in the class of new-formations of the skin, following in this the opinion of Wedl, who bases his view of its nature upon his microscopical examinations of the tissues affected; and who, our author says, has given the most minute and satisfactory description of the histological elements of that disease, upon which he has based his own description for the most part of its general pathology.

We have a full and graphic description of Elephantiasis Arabum, illustrated by two well executed photographs of the more common forms of this formidable malady, and embracing the opinions of different authors respecting its etiology and pathology, as well as of its treatment, of which our limits will not permit us to make even an abstract.

Dr. D. follows the view of Rasmussen in considering sclerema as closely related to this disease, who says that the pathological processes and its products are the same in both diseases, though the extent and subsequent modifications of the two affections are somewhat different.

The description of Elephantiasis Græcorum, founded on the extensive and accurate monograph of Danielssen and Borck on the disease as it prevails endemically in Norway, under the name of spédalskhed, or Norwegian leprosy, and with which it is considered identical, is full and interesting. Dr. D. has used the statistics from this source as the basis of his conclusions respecting the hereditary nature of the disease in general, and quotes the opinion expressed in that monograph, that it is incapable of being propagated by contagion, not a single instance of its having been thus communicated having ever come within the knowledge of its authors, among the hundreds of cases which they have observed and daily visited. As evidence of the extensive field for the study of this disease in Norway, we would add that, according to an official report on this subject, published in 1867, which has lately come into our hands, at the close of the year 1866 there were 2137 cases of this disease known in that country, of which 785 were in the public institutions.

Dr. D. points out the diagnostic marks between these two forms of Elephantiasis, which differ so much in their symptoms, etiology, pathology, and therapeutics, and also the marks which distinguish E. Græcorum from syphilis, with which it is sometimes confounded.

Dr. D. thinks that much light has been thrown on the treatment of this disease by the more precise knowledge of the condition of the spinal cord and its membranes in it; and that, with the light thrown on this subject by Prof. Brown-Séquard, we can hope for more success in its treatment, and that benefit may be

expected in future from the intelligent use of the iodide and the bromide of potassium, belladonna, and other therapeutic measures, during the congestive stage of the spinal membranes.

Epithelioma is passed over with a brief notice of its nature and characteristics, summing up the treatment in three lines, mentioning only excision and chloride of zinc, which, Dr. D. says, will answer the same purpose as excision in some situations, and if properly applied.

We think Dr. D. might safely speak more decidedly of the communicability of condylomata than to call them "somewhat contagious." It would be nearer the truth to call them almost invariably so—or at least liable to be so.

Dr. D. advises the excision of keloid growths when they are of large dimensions, though he says that they are liable to return. We do not advise this course, because we suppose their return to be the rule and not the exception.

Under the head of alopecia, it is stated that eczema, inpetigo, pityriasis, and psoriasis cause temporary alopecia. The contrary is our experience with these diseases when affecting the scalp, while we must differ from our author in the statement that the alopecia caused by favus is seldom, if ever, permanent. We have certainly seen it so in more than one case.

Dr. D. cautions against the use of lotions containing lead for restoring the natural color of the hair when it has become white. He says that they are exceedingly dangerous to the health. We have had no reason to speak so decidedly on this point.

The extensive bibliography which closes the volume and occupies thirteen pages, shows the industry of our author, who has consulted the various works and monographs bearing on his subjects, and has verified by personal observation and microscopical examination many of the facts which he has recorded. The illustrations consist of two wood-cuts of cutaneous horns, one of congenital canities, and two fine photographs of Elephantiasis Arabum.

The beautiful style in which the work is gotten up, with its clear type, tinted paper, and generous margin, does credit to the press of Messrs. Lippincott & Co., as do the wood-cuts and photographs of the illustrations to the Boston artisans.

Dr. Damon has now in preparation a monograph entitled "Functional Diseases of the Cutaneous Glands," in which he will describe more thoroughly than he has done in the present work, anomalies of color in the excretions of the skin.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

STATED MEETING, APRIL 5, 1869.

DR. GEO. T. ELLIOT, JR., President, in the Chair.

ACUPRESSURE.

AFTER transaction of the customary preliminary business,

DR. GEORGE A. PETERS read a paper upon *Acupressure, with Special Reference to its Application in the Continuity of Arteries.* The paper was long and elaborate, and illustrated by numerous water-color drawings. It will appear in full in the *New York Medical Journal;* we therefore give but an abstract:

After allusion to the earlier means employed for the arrest of hæmorrhage, and to the history of the ligature, from its introduction by Paré, the paper spoke of the first suggestion of acupressure, as presented by Sir James Y. Simpson to the Royal Society of Edinburgh, 19th Dec., 1859, and of its progress since that date, both in the excellence of its methods and in the favor of the profession. The best authorities on the subject were Simpson's own work; that of Pirrie and Keith, of Aberdeen; and the "Practical Treatise on Acupressure," by Dr. Joseph C. Hutchison, of Brooklyn, which received the prize at the late meeting of the State Medical Society, at Albany.

Next were considered the anatomy of arteries; the means which nature adopts to check hæmorrhage after their division; and the mode by which they become permanently occluded after application of the ligature.

Torsion, of late so much vaunted, and practised almost to the exclusion of other means, by Syme and his followers, claimed notice. Its three methods are: 1. Seizing the artery with forceps, draw it a little way out of its sheath, and, by rotating the forceps, twist it several times upon itself. This method, by destroying to a considerable extent the vital attachments of the vessel, leads to the death of the part so separated, and may induce serious inflammation higher up. 2. After drawing out the artery by one pair of forceps, fix it by a second pair, applied close to the sheath, and, rotating as before, twist the intervening portion. 3. Do not draw the vessel out, but seize only its cut extremity, and twist until the part held in the forceps comes away.

The appliances and methods of acupressure were now described. A full account of these has already been laid before our readers in the paper of Dr. Weber (MED. RECORD, Jan. 1, 1869, Vol. 3, p. 485). To the seven methods there given must be added, however, the *Eighth Method*, or *New York Twist*, devised by Dr. Gurdon Buck, and a *modification of the third method*, by Dr. Hutchison.

In the "New York Twist" the extremity of the artery is seized by forceps and rotated at least twice on its own axis; a pin, or wire-threaded needle, is then thrust entirely through the twisted artery, near the forceps, and secured by being pressed on into the soft tissues beyond. Dr. Peters objects to this method, that it violates the great principle of acupressure, which is carefully to avoid any violence to the artery.

Dr. Hutchison's method is given in his own words: "The artery is first exposed by the usual incisions; a loop of wire about eight inches long is laid in the wound parallel with the vessel, and on the side next the head-end of the pin; the pin is now carried through the flap, from its cutaneous surface, half an inch more or less (according to the depth of the vessel) back from the edge of the incision—say to bring it down to the level or plane of the artery, and then over the wire and beneath the vessel, without disturbing its vital and organic relations with the nerve, vein, or its sheath. When the pin has emerged from beneath the artery, the wire noose is thrown over the point-end, which is then carried through the opposite flap at a point corresponding to that at which it entered. The wire loop is next brought over the track of the vessel, which is now compressed between the pin below and the wire above; and lastly, the wire is fixed by a half turn around the pin. The removal of the pin, when the proper time arrives, liberates the loop, which can then be easily withdrawn." This method its author considers well adapted to application in the continuity of vessels. He has employed it in many experiments on the lower animals, and found it easy of application and removal, and thoroughly efficient.

The speaker now gave a record of the cases in which acupressure had been employed in this city and vicinity. The first trial was by himself, at St. Luke's Hospital, on the 6th of March, 1860. In April of the same year

the needles were used, at the New York Hospital, by Dr. Van Buren, and in May by Dr. Markoe. "From this time until December, 1868, a period of over eight years, the carefully kept records of the New York Hospital show no case in which acupressure was resorted to." December 21, 1868, Dr. Krackowizer acupressed the brachial artery and one other, in amputation of the arm, the needles being withdrawn forty-eight hours after, by the aid of Dr. Buck's guide, which is thus described and commented upon: "It consists of a thin steel rod, about three inches in length, provided at one end with a handle, and at the other with a small immovable steel ring; both the handle and ring stand off at right angles to the shaft of the instrument. The wire attached to the needle is passed through the ring; the instrument is then carried down through the lips of the wound, along the wire as a guide, to the eye-end of the needle. The instrument is then pressed firmly down in its place, and the needle and wire are withdrawn. If, after the introduction of the armed needle in acupressure, care be taken, before closing the wound, to carry out the wire in a straight line with the needle, and also to avoid all kinking, when you desire to withdraw it no helping instrument will be needed—only draw carefully upon the wire, and the needle will readily follow.

Since this revival of acupressure, cases have followed in rapid succession. The following is a conspectus of the nineteen cases of acupressure proper, reported in the paper:

No.	OPERATOR.	OPERATION.	SEX AND AGE.	NO. OF PINS OR NEEDLES, AND METHOD.	REMOVED AFTER	RESULT AND REMARKS.
1	G. A. Peters (St. Luke's Hospital).	Excision of mamma and axillary glands, for cancer.	F. 33	3 pins.—First.	72 hours.	Primary adhesion, except at small opening in axilla. Rapid and complete recovery.
2	W. H. Van Buren (New York Hospital).	Amputation of forearm for comp'd fracture of metacarpus, forty days previous, with sloughing.	M. 23	3 pins.—First.	48	Primary adhesion throughout deeper portion of stump; a slight linear ulceration at its periphery. Recovery.
3	T. M. Markoe (New York Hospital).	Amputation of leg, upper third.	M. 35	5 needles.--First. Torsion of 3 muscular branches.	72	Needles left suppurating tracks. Union by first intention throughout one-half the stump. Suppuration of knee-joint, and death two months after operation.
4	E. Krackowizer (New York Hospital).	Amputation of arm, upper third (primary), for comp'd fracture of radius and ulna, with extensive laceration of soft parts.	M. 50	2 needles.--Third and fifth.	48	No primary union; healing by second intention. Recovery. Needles withdrawn by aid of Dr. Buck's guide.
5	J. A. Beekman' (House Surg., N.Y. Hosp.).	Amputation at knee-joint, for comp'd fracture of leg, twenty-one hours previous.	M. 40	2 needles.—Fifth and eighth.	48	No primary union. In attempting to withdraw needle securing popliteal, by aid of Buck's guide, the wire broke close to its eye, leaving needle still in wound; next morning it was found loose and protruding.
6	E. Krackowizer (New York Hospital).	Amputation of thigh, middle third, for comp'd fracture, two months before.	M. 53	6 needles.--Third and eighth.	48	No primary union. Soft parts very stiff, with fatty degeneration of muscles. Femoral secured by third method, being too much calcified to admit of New York twist, which was applied to the other arteries.
7	T. E. Satterthwaite (House Surg., N.Y. Hosp.).	Amputation of thigh, for comp'd fracture of leg.	M. 10	4 needles.—Fifth and eighth.	45	Considerable primary adhesion. Death from pyæmia twenty-five days after operation.
8	E. Krackowizer (New York Hospital).	Excision of mamma, for enchondroma.	F. 40	8 needles.--Fifth.	48 and 72	No primary union. One needle removed after six hours; hæmorrhage, and needle reapplied. Seven needles removed at the end of forty-eight hours: the eighth, being overlooked, not removed till next day.
9	G. Buck (New York Hospital).	Amputation at shoulder-joint (primary), for accidental amputation of arm, with extensive laceration.	M. 47	8 needles.—Fifth and eighth.	67	Very little primary union. Death on twelfth day. Needles withdrawn with Buck's guide.
10	R. F. Weir (St. Luke's Hospital).	Amputation of arm, junction of upper and middle third (primary), for comp'd comminuted fracture.	M. 35	7 needles.--Fifth. Silk ligature to brachial.	48	Primary adhesion, except in track of ligature. Ligature came away on eleventh day.
11	R. F. Weir' (St. Luke's Hospital).	Amputation of thigh, middle third, for dislocation of knee from chronic arthritis.	M. 18	4 needles.--Fifth.	48 and 72	No attempt at primary union. Death from uræmic convulsions on thirty-fifth day. Three needles removed after forty-eight hours; that securing femoral, being firmly held by oxidation, removed after seventy-two hours.
12	G. Buck (St. Luke's Hospital).	Amputation of forearm (primary), for comp'd comminuted fracture.	M. 46	3 needles.--Fifth.	40 and 90	Hæmorrhage occurring, one of the three needles was replaced by silk ligature; one of the remaining needles was removed after forty hours, the other on the fourth day, before which stump had to be opened to allow escape of pus. Death (from pyæmia?) on nineteenth day. Patient had suffered also severe injury to other hand and arm.
13	R. F. Weir (St. Luke's Hospital).	Excision of mamma, for cancer.	F. 68	2 needles.--Third and fifth.	24	Primary adhesion almost complete. Suppuration and erysipelas followed, and death on tenth day.
14	G. Buck (St. Luke's Hospital)	Amputation of thigh, junction of upper and middle third, for encephaloid cancer of leg.	M. 33	———.Third and fifth.	45 and 70	No hæmorrhage. Death on sixteenth day. Needle securing femoral left so long on account of patient's exhausted condition.
15	J. L. Little.	Excision of mamma.	F. —	———.Fifth.	20	No hæmorrhage.
16	J. L. Little.	Amputation of thigh, lower third, for railroad injury.	— —	———.Third and fifth.	2d and 5th day.	No hæmorrhage. Death on seventh day from effects of shock. Stump in excellent condition. Needles removed from smaller vessels on second day; that on femoral allowed to remain till fifth, as patient was constantly vomiting.
17	J. L. Little.	Removal of glandular tumor of mamma.	F. —	1 needle.—First.	20 hours.	Union by first intention, without one drop of discharge.
18	J. L. Little.	Removal of large adipose tumor from outside of thigh.	— —	2 needles.--First.	20	Union by first intention, complete.
19	J. L. Little.	External urethrotomy.	M. —	1 needle.--Third.	19	Arrest of hæmorrhage from wound of bulb.

Dr. Peters next reviewed the history of the temporary ligation of arteries, in continuity, for the cure of aneurism. In illustration of the applicability thereto of the principle of acupressure—defined as "temporary metallic compression, of force sufficient simply to close the calibre of the artery, without lacerating any of its coats"—were given four cases, which we quote:

CASE 20. *Temporary Ligature of Femoral Artery, for Popliteal Aneurism.* By DR. G. A. PETERS.—Leopold Kah, German, aged twenty-nine, was admitted to New York Hospital, October 20, 1868. A few weeks ago, patient first noticed a swelling in the popliteal region, which was painful, and soon rendered him incapable of work. He was seen by three physicians, who all seem to have mistaken the nature of the tumor, as they opened it with the knife, by small incisions, three times in as many days. The openings made by the first two physicians were followed by a sharp spurt of blood, which seemed to surprise them, as they each stitched up the wound and left the patient to the tender mercies of a third, who, making a bolder dash than his predecessors, was appalled by the gush of about two quarts of blood; he hurriedly bandaged up the limb and abandoned his patient, who was then brought to the hospital. On admission, he was almost pulseless, and excessively prostrated from loss of blood. The lips of the wounds made into the aneurismal sac were sloughy.

October 21, 1868.—I secured the common femoral artery by the following method, at the suggestion of Dr. Buck: The artery was exposed in Scarpa's triangle, by the usual incisions. The sheath of the vessel was opened barely sufficient to allow a small aneurism needle, armed with a piece of strong, smooth, moderate-sized hempen twine, to be passed round the artery; the ends of the ligature were then threaded through a small silver double canula, about two inches in length, and the canula passed on, through the wound, down upon the artery. The ligature was then drawn tight enough to stop the circulation, but not with sufficient force to lacerate the coats of the vessel, and the ends were tied over the external extremity of the canula. The canula was then secured in a position at a right angle to the artery, against a roller-bandage, placed on the thigh, and the roller, in its turn, was kept in place by adhesive straps. Wound was closed by silken sutures. Union by primary adhesion took place throughout the wound, except in the track of the instrument.

The ligature was removed with great ease *forty-seven hours* after the operation, and no blood followed it. The edges of the skin-flaps subsequently took on ulceration, but the union of the deeper parts was not disturbed. No pulsation could be detected below the point of acupressure, and the tumor was much diminished in size.

The threatened sloughing of the sac progressed, until finally a cavity was left in the popliteal space, in which a large fist could be buried. Owing to the great loss of blood which had occurred previous to the patient's admission to the hospital, gangrene of the foot and leg supervened, necessitating amputation at the knee-joint, which was done November 13, 1868, by irregular flaps, as sound skin could be found.

The patient eventually recovered, and was discharged, fat and hearty, February 8, 1869, with a good stump.

CASE 21. *Temporary Ligature of Femoral Artery, for Popliteal Aneurism.* By DR. BUCK, at St. Luke's Hospital, September 23, 1868.—Patient a young man, aged twenty-four. Femoral artery was exposed in the usual manner, and a silver wire (No. 26) placed under the artery; the ends were then crossed over it and secured by three half turns or twists. On the third day, the wire was removed, but it was found necessary to reopen the wound, in order to untwist the wire without endangering the artery. No hæmorrhage, except from the disturbed adhesions, followed the wire. After a reasonable time, the patient was discharged cured.

CASE 22. *Ligature of Subclavian Artery, for Axillary Aneurism.* By DR. BUCK.—Dr. Buck also applied acupressure by this same method, with the twisted silver wire, to the subclavian artery, for axillary aneurism. This operation was done at St. Luke's Hospital, but it was found impossible to remove the wire by untwisting, without endangering the artery. It was therefore allowed to remain until it had cut through the vessel. Patient discharged cured.

CASE 23. *Temporary Ligature of Femoral Artery, for Popliteal Aneurism.* By DR. MARKOE.—Dr. Markoe used acupressure, by this same method, at the New York Hospital, September 29, 1868, on a man aged thirty-five, who was admitted with popliteal aneurism. He passed a fine iron wire around the femoral, in Scarpa's triangle, and secured it by three twists. Wire removed seventy-two hours after operation. In this case, also, it was found necessary to reopen the wound in order to untwist the wire. Gangrene of foot afterwards set in, and patient sank into a typhoid condition, and died November 13, 1868. "The artery at the point of ligature was found slightly thickened, reddened, and its calibre but little diminished. The vessel was pervious, but a long, thin clot, three inches in length, was found in it, extending on either side of the point of pressure."

Dr. Peters had been led to use the twine and canula in his own case, from the difficulty of removing the twisted wire. In a similar case again, he would substitute a leaden wire for the twine. He deems it important completely to arrest the current at once, so as to secure rapid consolidation, and early removal of the needle, to prevent its cutting through the arterial coats.

The mode by which an acupressed artery becomes permanently occluded, was illustrated by the experiments upon the lower animals, of Dr. J. C. Hutchison and Dr. C. M. Bell, which were given in detail. Their results agree substantially with those given in Dr. Weber's paper, before referred to. To that we must direct the reader, also, for the arguments in support of the general superiority of acupressure to the ligature, with which Dr. Peters concluded his essay.

THE PRESIDENT remarked that he saw a number of surgeons present whose experience amply qualified them to comment on the paper just read, and he would venture to call upon Dr. Buck, of the New York Hospital.

DR. GURDON BUCK remarked that there was but little which he could even desire to say on the subject at issue, for the paper of Dr. Peters had most fully set forth the experience at the New York Hospital with acupressure. His own experience with this method was in a measure identified with that of this hospital, as it had mostly occurred during his term of service there. The judgment of all the surgeons of the hospital was decidedly in favor of this plan of arresting hæmorrhage, which they believed was a step in advance of the usual methods of treatment, and would prove a valuable and perfectly reliable resource in surgical procedures. Concerning the so-called New York twist, Dr. Peters might have mentioned that this method had already been subjected to some very trying tests, which seemed to substantiate its claims to acknowledgment. He recalled one instance, in particular, of its application by Dr. Krackowizer, in an amputation of the knee-joint. An ordinary steel needle, not plated, was used. When, after forty-eight hours, an attempt was made to remove it, it was so firmly held that the traction necessary for its removal was sufficient to pull the whole weight of the stump toward the operator, and the wire attached to the needle gave way. The needle, left to itself, came away the next day, and no hæmorrhage whatever followed. Other applications of the New York twist showed that it was reliable. Dr. Buck gave the preference to the use of ordinary needles, gilded and threaded with wire. The treatment of wounds by

the acupressure method must not only facilitate union by the first intention, but, by the entire removal of all foreign substances from the wound at the end of forty-eight hours or thereabouts, the chances of consecutive constitutional disturbance were lessened, and hence the danger from pyæmia and other secondary accidents was very materially diminished. Certain contingencies might arise in practice, as in Dr. Little's case of perinæal section alluded to in the paper, where acupressure must prove a most valuable resource. In all deep wounds, it was not infrequently very perplexing and embarrassing to apply a ligature with any degree of accuracy or care. Then the insertion of an acupressure needle or pin would accomplish the object most readily, and hæmorrhage under such conditions could easily be restrained. The application of acupressure to the continuity of arteries in the treatment of aneurism, was certainly a most interesting subject for investigation. Experience had not, perhaps, thus far accumulated to a sufficient extent to justify absolute deductions as to its value. It was to be hoped that these trials might be continued, and their results, which must now be considered somewhat premature, made available for all.

Dr. Hutchison, of Brooklyn, said that he had listened with profound interest to the paper of Dr. Peters. This interest was heightened because the paper gave, for the first time, the history of the operation in New York city, and because, being brought out by a surgeon of one of our largest hospitals, it would have a tendency to bring the subject and the methods of acupressure more prominently before the profession of this country. In his own practice for the last two years, during which time he had had occasion to perform a number of capital operations, he had employed no other means for the arrest of hemorrhage than acupressure, except in a few instances where torsion was promptly efficient in restraining the flow of blood from small vessels. But torsion must not be used if we expect union of wounds by primary adhesion. There were two considerations on which, in his estimation, the value of the operation depends: 1. Is it a reliable means of arresting hæmorrhage? 2. Is it not the means of saving life in many cases which might have terminated fatally, had the ligature been used? The evidence upon both these points was very strong, and could not be gainsaid. With regard to the application of acupressure in the continuity of arteries, for the cure of aneurism, as described by Dr. Peters, he had not applied it for this purpose; but, in his experiments upon animals, he had used it so frequently to close vessels in their continuity, that he was convinced it would soon be acknowledged as a proper procedure. Not the least of the advantages of the method which had been associated with his name, was that the application could be made without disturbing the organic relations of the parts; and, when the object was accomplished, the pin and wire were easily removed. Dr. Hutchison then demonstrated, upon a model prepared for the purpose, this method, and also another method, proposed by Sir James Simpson, which had not been brought forward in the paper of the evening. It consists in passing a long needle, sharpened at both ends, down through the bottom of the incision, between the artery and the accompanying nerve or vein, till its point emerges an inch or more through the skin externally, at a proper angle. Afterwards, using this emerged point as a handle, the other end of the needle may be pulled down to the level of the artery, then passed over it, and ultimately fixed by being driven a few lines into the tissues beyond—avoiding, of course, the vein or nerve that may lie on that side. The long needle, in whatever manner used to bridge over the artery, requires to pass over it only at such an angle as is sufficient for the full closure of the vessel; and it is to be remembered, that a very slight amount of steady and fixed pressure is quite sufficient for this purpose.

Dr. Alfred C. Post said that he had no personal experience in the practice of acupressure. He was inclined, however, to think favorably of it, especially as a means of arresting hæmorrhage in large wounds, but he did not favor its application in the continuity of arteries. There were certain practical difficulties here, some of which had already been suggested, which, however, future experience might in a measure obviate. The difficulty of detaching and removing the pin or wire had proved a very serious one; and, notwithstanding the endeavor of Dr. Buck to evade this difficulty by the use of the double canula, there was still much trouble in accomplishing the object; and in the small number of cases in which it had thus far been tried, the results had not been favorable. Our experience was too brief to enable us to form a conclusive opinion of the merits of the method, and this, in his estimation, demanded, for the present at least, a suspension of judgment.

Dr. Krackowizer said it was only tedious to extend remarks on a paper which was so complete and well digested as that read this evening, and he could add nothing to it.

He would, however, express an opinion somewhat at variance with that of Dr. Peters, regarding the estimate put upon the New York twist, added by Dr. Gurdon Buck to the methods already known; for he had inferred that he, Dr. Peters, was not inclined to look with very great favor upon it. In his estimation, this method was the best yet brought forward for large bleeding vessels which were loosely embedded in their sheaths, and were accompanied by veins and nerves. In this condition of things the Aberdeen twist was not available, and generally the third or fourth method would have to be resorted to. Now, in the New York twist, the needle armed with wire was all that was necessary; whereas, in the third and fourth methods, a wire loop besides was indispensable. Harmless as metallic threads might generally be looked upon, as not causing suppuration, yet they were foreign bodies, and the less we had of them in a wound the better. The New York twist put *one* foreign body in the wound; the third and fourth methods, which it supplants, *two*. Moreover, although ordinarily there is no difficulty in withdrawing the wires, yet that they would never get entangled in the tissues, and never disturb union, cannot be maintained. In the New York twist the needle and wire is withdrawn in the very line in which it is inserted. In the third and fourth methods the same is done so far as the needle is concerned, but the loop must needs tear a little and enlarge the track through which the needle has travelled out.

He would add a word in defence of the ligature. For, although he announced himself a convert to acupressure, he claimed that the ligature still has its value, and that it will never be entirely superseded. Satisfactory as was the experience with acupressure as a hæmostatic, yet that a more perfect mechanism than the ligature could be devised to arrest bleeding from open vessels he would deny. The inherent defects of the ligature were, that it could not come away except by being liberated from its hold by ulceration; and that, being made of porous material, it would absorb the liquids from the wound, and so become a receptacle for decomposition of organic matter. These two things went, of course, directly against the first conditions of union by first intention. But to charge the many failures of large wounds to heal by first intention exclusively or prevalently to the use of textile material

for ligatures, was doing injustice to the ligature as a hæmostatic method. Much of the interference by ligatures with union by first intention could be avoided, by arranging the threads properly, and carrying each one out of the wound separately and in the shortest direction. If surgeons would only renounce the abominable practice of gathering up all the ligatures, radiating from different points, into one skein—a rope, as it were, to be brought out by one angle of the wound—much needless suppuration could be prevented. Besides, if care were taken to make an even wound, with all the parts cut as much as possible in one plane; if operations were not unskilfully prolonged by the necessity of subsequent trimming of redundant projections; if wounds were not closed before all parenchymatous bleeding had ceased; if stumps were properly dressed and comfortably placed—more would be done to avoid suppuration than acupressure could effect, most excellent and most rational as this method was. All these points enumerated, taken together and separately, had more to do in causing failure of healing by first intention than the ligature with threads. He forbore to dilate on those elements that were beyond the surgeon's skill—the constitution of a patient, and external influences hostile to the healing of wounds by primary union.

Gentlemen would remember that, some ten or fifteen years ago, the metallic suture was heralded as something so transcendently perfect that the old, honest silk thread could have no more standing in the surgical art. Surgeons that still clung to it were decidedly voted old fogies. And yet now we all confess that many times the metallic suture cuts as quickly through the parts to be kept in contact as the silk, that we get as good linear cicatrices with the silk suture as with the metallic one. If Sims, Emmet, and Bozeman could point to their marvellous success in healing vesico-vaginal fistulas, their merit lay more in their skill and in the perfection of the method in all its details, than in the use of the silver wire. Prof. Gustav Simon, now in Heidelberg, had no inferior success in the same operation to that of the American surgeons, although using the silk thread. Not only was the metallic suture often no better than the silk suture, but in many instances it was inferior. He would maintain, without fearing contradiction, that, in plastic surgery of the face, for example, experienced surgeons would give the preference to the silk sutures. This history of the rival claims of the two kinds of sutures was a good index in forming an opinion of the relative merits of acupressure and ligature. Acupressure was now riding on the wave of surgical favor. He had no idea that its success would, like that of many new things, be only ephemeral. But a few years' experience would probably show that ligature, now in danger of being almost driven from the field, would repossess itself of a part at least of the territory it once had held exclusively, and would there maintain itself as superior to acupressure.

Dr. Hutchison desired to place himself upon record regarding the use of ligatures, inasmuch as, in a recent number of the *Buffalo Medical and Surgical Journal*, the views he had expressed at the meeting of the State Medical Society had been misunderstood. Although he had not used the ligature in practice for two years, he did not mean to convey the idea that he should never resort to it. He could readily conceive of certain contingencies in wounds, or certain characters of wounds, where acupressure could not be applied as readily as the ligature. As regarded the application of pressure to the continuity of arteries by means of special instruments, such as forceps, clamps, etc., he would remark that it was nothing but a modification of the principle of acupressure, and should be so regarded.

Dr. James L. Little expressed his preference for the use of the long needles. They were more advantageous than the needles armed with wire, and could be withdrawn with vastly greater ease, and less danger of exciting hæmorrhage or disturbing the surrounding soft parts. When the wire was used, care should be taken to have both ends of exactly the same length, and uniformly and evenly twisted throughout their entire length. In a case at St. Luke's Hospital, a few days ago, where he had used the needles and wire, a neglect of this precaution had given rise to considerable trouble and some laceration of the wound by the jagged end of the wire drawn through the soft parts. He attached special value to the fifth method, as described by Dr. Peters, though he had also used quite largely the fourth method, and with excellent success.

Dr. Buck referred to a mode of temporary occlusion of arteries adopted by Dr. Krackowizer, in an operation requiring disarticulation and removal of nearly half the lower jaw. The patient was so feeble as to give rise to some hesitation regarding the advisability of the operation; but this seemed imperatively demanded, and it became very important to save every drop of blood possible. The common carotid was exposed, a thread ligature passed around it, the ends of the ligature passed through the tubes of a double canula, and tied over its outer end just tightly enough to arrest the circulation in the vessel, which was compressed between the inner end of the canula and the loop of thread. This compression was maintained only during the operation, at the completion of which the ligature and canula were withdrawn, and the wound was closed. It served its purpose perfectly, in preventing the hæmorrhage which would else have been inevitable in the latter stages of the operation, during the necessarily rather slow process of disarticulation.

Dr. Post inquired whether Sir Charles Bell's plan, of incising the superficial tissues over the vessel, without completely exposing it, so as to bring the finger near enough to exert sufficient compression, might not be a preferable mode of securing temporary occlusion?

Dr. Krackowizer replied that such compression of the carotid would involve compression also of the jugular vein and the vagus nerve; and that while the patient was under the influence of an anæsthetic, of itself apt to produce derangement of the circulatory and respiratory functions, the compression of a nerve so important in its relations to those functions might be attended with considerable danger. Then, during the operation, the patient's head must sometimes be moved for the convenience of the surgeon; and he would defy any assistant so certainly to follow all these necessary movements as to insure that there should not be some spurt of blood, perhaps at the critical moment when a large branch was just divided, obscuring the operation, and in a case like the one in question, liable to produce fatal exhaustion. The canula was applied so as to exert a pressure just sufficient to interrupt the flow of blood through the artery, without rupture of its inner coats. This was proved by the fact that immediately after its removal the pulsation was as good as before its application.

Dr. Buck suggested that this double-canula ligature might prove useful in operations for removal of ovarian cysts. It commended itself to his own judgment as the very best mode of securing the pedicle before such removal. The canula should be made of proper length, and the ligature might be of fish-line. It would not require to remain more than forty-eight hours at farthest, probably in most cases not more than twenty-four, at the end of which time no foreign body would be left in the wound. He thought it might prove perfectly reli-

able, certainly as much so as some of the clamps, which made him shudder at the thought of their being left in the abdomen.

Dr. Peaslee thought such a canula could not be applied with sufficient firmness to make perfectly sure that it would not slip or come away.

Dr. Buck had devised a plan for tightening the ligature to any extent desirable. He had had a double canula made with a tourniquet at its outer end; and by turning the screw you could graduate the pressure perfectly. To prevent slipping, he saw no objection to passing the ligature through the investing tissue upon either side of the pedicle.

Dr. B. Howard said that the highest result we could hope to attain was to secure occlusion of the arteries without introducing any obstruction to healing by first intention. That this had been done, in stumps and wounds, by acupressure was undeniable; but in the continuity of arteries, acupressure was far more difficult of application, and in some regions was perhaps impossible. In such cases certainly, if not in others, some other method, more convenient of application and answering the same ends, should be adopted.

With regard to the use of a canula as described by Dr. Buck, and as used by others, where the object was the permanent closure of an artery, was it justifiable to apply a ligature by such means, with the intention of subsequently removing it, and that too, possibly, as had several times occurred in this city, by a second operation for that purpose? He had recently seen a case in which a ligature, applied through a canula tightly enough to arrest the arterial current, had become subsequently loosened, and he knew the attempt to tighten it had justly caused the surgeon very serious apprehension. Moreover, instead of allowing healing by first intention, the wound he saw was simply a well, the canula serving as a metallic air-shaft down to its bottom, which was the artery, upon which, of course, the weight of the canula rested. From the surface of this well, as one might anticipate, pus was overflowing, and the mouth of the double canula or shaft indicated by its vertical motions the pulsations of the femoral artery upon which it rested. It was hardly a question whether the application or the removal of the canula and ligature was attended with the greater danger. Consequently the operation was doubled, and the risk more than doubled, from the additional dangers incident to the secondary character of the operation for removal. He did not wish to appear too frequently as the advocate of silver-wire ligatures; but he had demonstrated that they could be applied so loosely as to do no damage to the artery, secure its occlusion, and as certainly be followed by healing completely by first intention. He thought this method could be applied where acupressure could not be; and unlike even acupressure, it called for no subsequent disturbance whatever. Why should we not try more fully a method which promised all we desire, with freedom from all we would avoid?

Dr. Post referred to the death of Dr. Alexander H. Stevens; and a committee, consisting of Drs. Post, Peaslee, and Buck, was appointed to prepare appropriate resolutions, to be submitted to the next meeting.

The Society then adjourned.

Five Male Children at one Birth.—M. Galopin, of Paris, reports the case of a young woman who gave birth to five male children at one time. The children were all well formed, and lived long enough to be baptized.—*Medical Bulletin.*

EAST RIVER MEDICAL ASSOCIATION.

Stated Meeting, April 6, 1869.

Dr. Robert A. Barry, Vice-President, in the Chair.

THE LATE DR. M'CARTIN.

Dr. Wm. Newman, Chairman of the Visiting Committee, in feeling and appropriate language announced the death of Dr. Henry E. McCartin, a member of the Association, on the 12th day of March. In the course of his remarks the doctor suggested that some provision be made for the timely notification of members in the event of a death.

Upon motion of Dr. Nichols, a committee was appointed to draft resolutions of condolence, etc., as follows: Dr. William Newman, Dr. H. E. Crampton, and Dr. Verranus Morse.

Dr. Crampton gave notice of the following proposed amendment to the Constitution:

Resolved—That the Constitution be so amended that the Chairman or any member of the Visiting Committee may have power to call a special meeting of the Society, in order to make arrangements for attending the funeral, as an association.

Laid over for action at the next meeting.

A REMARKABLE CASE OF UMBILICAL HERNIA—OPERATION—RECOVERY.

Dr. Ward exhibited a pathological specimen, being the sac of an umbilical hernia which he had removed from a woman fifty years of age, healthy in every other respect, and weighing 250 pounds, and the mother of three children.

The doctor saw her first about two years ago, and found a tumor at the umbilicus, about the size of a newborn infant's head, and which had been existing for seven years, without even an attempt at reduction. It had been occasionally strangulated, causing intense pain, for which the patient was accustomed to seek relief by morphia, and the application of cloths wrung out of hot water. A portion of the integument about the size of the palm of the hand had sloughed, from the effects of the hot applications.

The doctor reduced the hernia and applied a truss. Some time subsequently he was summoned in haste, and found his patient in bed, and a large mass of intestines wrapped in a piece of flannel lying beside her. The points of the case were, in brief, as follows: The truss, being somewhat painful, had been removed, and during a violent fit of coughing the sloughed portion of the sac gave way, and the intestines escaped through the opening.

The doctor returned the intestines, and then decided to operate for a complete cure. He excised the whole sac, including skin, adipose tissue, and a large quantity of omentum, bringing the edges of the wound together with silver sutures. The patient recovered without any untoward symptoms, and twenty-one days after the operation attended church.

One deduction to be drawn from this case, the doctor remarked, was, that he believed an operation on any parallel case might be performed on the abdomen of a woman who has borne children, without any great risk of peritonitis.

ELECTRICITY IN PARALYSIS AND DYSPEPSIA.

Dr. Beard, who was present by invitation, spoke at some length on the value of electricity in paralysis and dyspepsia, and quoted several cases where patients had derived signal benefit from its use. At the conclusion of his remarks the doctor received the thanks of the Association.

REVISION OF THE CONSTITUTION AND BY-LAWS.

DR. NEWMAN called attention to the present condition of the Constitution and By-Laws of the Society, they being totally inadequate to meet the wants of the Association, as at present constituted. Many amendments had been added, and several were already proposed, so he deemed a thorough revision and reconstruction necessary. A motion to appoint a committee for this purpose was put and carried, and the following members appointed: Drs. William Newman, John Shrady, Verranus Morse, Truman Nichols, and William F. Thoms.

THE PHYSICIANS' MUTUAL AID SOCIETY.

DR. O'SULLIVAN brought before the notice of the meeting an organization lately established in this city, known as the "Physicians' Mutual Aid Association," detailing its objects, etc. It is composed of medical men, and is intended to include as many as desire to join, in different parts of the State.

The object is, upon the death of any member, to pay over at once to the nearest friends of the deceased a sum of money, raised by assessment on the members of the organization.

Dr. O'Sullivan explained the advantages of the system at some length, and recommended the members of the East River Medical Association to give the subject full and careful consideration.

After which the Association adjourned.

Correspondence.

A RARE CASE OF MONSTROSITY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—The following is a report of a case which occurred in the course of my practice, a few months since, and which, I think, you may consider, on account of its rarity, of sufficient interest for publication in the MEDICAL RECORD. The case is one of the rarest forms of *double monstrosity*, and in the limited medical reading to which I have access here, I have been unable to find any record of a case in which two otherwise perfectly-formed children have been united in a similar manner.

Amelia H——, aged 20 years, mulatto, a native of Jamaica, was taken in labor, about nine A.M., Sunday, September 6th, 1868. I was called to see her at 1.30 A.M., September 7th, when I found that the membranes had ruptured about three hours and a half previously, and that a right arm was presenting from the vulva. Uterine contractions were forcible and frequent. I attempted unsuccessfully to reduce the arm and bring down the feet. Went for chloroform, and on returning found that the child had descended somewhat, and was doubled up in the vagina. With the assistance of the chloroform I succeeded in bringing down the feet. When the head had been delivered, I found it still firmly attached to something, and supposed that the child had an enormous tumor of some kind on its head; but soon another pair of eyes and a mouth followed, and I discovered that I had got *two girls united by the tops of the heads*, well formed, equal in size, dead, but probably alive at the commencement of labor, judging from the condition of the presenting arm. Period of gestation, between seven and eight months. The two faces looking in nearly the same direction. Ossification equally complete in both skulls, which were also of equal size; the frontal and parietal bones not continuous over the tops of the heads, but meeting each other without being united. There was no indication of any septum of bone between the crania; but both brains were apparently contained in one osseous case. There was a thick growth of hair all around the heads.

The loose condition of the cranial bones and flexion of the necks allowed of the bodies being brought parallel to one another, and it would be a point of some interest to know what their relative position was when *in utero*. There was one small placenta for the two; each child having its own umbilical cord.

This woman had one child two years ago, a girl, well formed, still living.

The mother had a complete but rather tedious recovery, and, of course, ascribes the peculiar formation of the children to the fact of her having witnessed an acrobatic performance a few months previous to their birth.

GEORGE BADGER, M.D.,
Surgeon Panama R. R. Co.

ASPINWALL, U. S. C., March 30th, 1869.

Medical Items and News.

A DERMATOLOGIST ABOUT ENTERING THE ESTABLISHED CHURCH.—Dr. T. W. Belcher, of Dublin, well known as a dermatologist, contemplates entering the Episcopal ministry.

DEATH OF A DUBLIN SURGEON.—Maurice H. Collis, Surgeon to the Meath Hospital, Dublin, and the author of a practical work upon "Cancer and Tumors," died recently, at the age of 45. While removing an upper jaw in the hospital operating theatre, he became poisoned from a slight scratch received during the operation.

PHYSICIANS IN BOSTON.—The Boston Directory shows that Boston contains 574 doctors. The "regular army" is composed of 275 strong. The female physicians number 60. Calling the population of that city 230-000, there is one regular physician to every 800 inhabitants; and taking the whole medical force, one medical man to every 400 souls.

UNIVERSITY OF MARYLAND, BALTIMORE.—The well known and time-honored "Nestor of Surgery," Prof. Nathan R. Smith, now fills a newly-created chair of "Clinical Surgery," in the University of Maryland. Prof. J. J. Chisolm occupies the chair of "Operative Surgery."

THE INFLUENCE OF THE WEATHER ON HEALTH.—Dr. Ballard's nine aphorisms on the influence of weather upon sickness are stated thus, in his recent Report on the Health of Islington:—

1st. That an increase of atmospheric temperature is normally associated with an increase of general sickness.

2d. That a decrease of atmospheric temperature is normally associated with a diminution of general sickness.

3d. That for the most part the increase or decrease of sickness is proportional in amount to the extent to which the atmospheric temperature rises or falls.

4th. That it is an error to suppose (as is popularly held) that sudden changes in temperature are (as a rule) damaging to public health. A sudden change from cold to hot weather is indeed very damaging; but a sudden change from hot to cold is one of the most favorable circumstances that can occur when sickness is regarded broadly as respects a large population.

5th. That, remarkably enough, these influences are most marked in the directions I have mentioned in the colder season of the year, and more certain in the winter than in the summer.

6th. That rises and falls of temperature are more certain and effectual in their special operation upon public health when at the same time the daily range of temperature is lessened, than they are when the daily range is at the same time increased; rises of temperature increasing sickness more certainly and markedly, and falls of temperature decreasing it more certainly and markedly.

7th. That a fall of rain lessens sickness generally, sometimes immediately, sometimes after a short interval, and that, as a rule, the reduction of general sickness is greater when the fall of rain is heavy than when it is light.

8th. That drought, on the other hand, tends to augment general sickness.

9th. That wet weather in the summer season operates more certainly in improving public health than it does in the winter season.

To Prevent Death by Chloroform.—Experiments on inferior animals show that they may be restored from apparent death from chloroform by the continuous galvanic current, the negative pole being put in the mouth and the positive pole in the rectum. In some cases the animal was left for two minutes in a state of apparent death and then restored.

A Valuable Gift.—The widow of the late Dr. Dewitt C. Enos, of Brooklyn, L. I., has presented his library, consisting of 815 bound volumes and 74 unbound volumes, to the Long Island Historical Society.

A New Hospital for Incurables Projected.—Angelo Ames, Esq., of Albany, N. Y., one of the governors of the Albany City Hospital, intends founding a "Hospital for Incurables," at Albany, which will provide for a large class of poor patients.

A New and Novel Journal.—A bi-monthly *Journal of Parasitology*, to be published under the direction of Prof. Hallier, of Jena, is announced.

Chinese Opium.—A telegram from Hong-Kong reports that the cultivation of the poppy has been prohibited in China by an Imperial edict.

Inoculation of Tubercle upon Vegetables.—M. Desmartis, of Bordeaux, has succeeded in inoculating upon plants tubercular matter taken from the human being.

Cities Lighted with Wood Gas.—The cities of Wilmington, N. C., Macon and Columbus, Georgia, and Montgomery, Alabama, are all lighted with wood gas.

Contagiousness of Consumption.—Many experienced practitioners believe in the contagiousness of phthisis pulmonalis. Dr. Bowditch, of Boston, is one of them.

De-Nicotinized Tobacco.—Dr. T. Williams (*Chicago Medical Journal*) recommends smokers to place in the bowls of their pipes a little powdered tannin, or a sponge saturated with a solution of tannin. The smoke will thus be deprived of its characteristic aroma and all the vaporized nicotine, which is the intoxicating principle. At first the smoke will be entirely free from all taste and smell of tobacco, but as the sponge becomes charged with the nicotine the odor will reappear. By charging the sponge frequently, the smoker may indulge in his habit as immoderately as he pleases without injurious effects.

Entire Extirpation of the Tongue.—Dr. Fenwick, in November last, removed the entire tongue for epithelioma of that organ, at the Montreal General Hospital. The operation as performed was speedy and bloodless. After applying the chain and strangulating the organ, it was severed in nine minutes and a half. On the 12th day after the operation, the patient returned home, a distance of 190 miles.—*Canada Medical Journal.*

Deaths from Hydrophobia.—Forty-seven persons died of hydrophobia in the Grand Duchy of Hesse, Darmstadt, in 1867.

Rich Beef Tea.—The addition of a small tablespoonful of *cream* to a teacupful of beef tea renders it richer and more nourishing.

The *Cinchona* tree has been planted in Jamaica, with success. The climate is admirably adapted to its growth.

Protestant College at Beirût, Syria.—This college has forty-one students in the literary, and twenty-one in the medical department.

The Tobacco Controversy.—The absurdly exaggerated statements of the Anti-Tobacco Society and other enemies of the weed lose all their force by proving a good deal too much. We must set aside cases of excessive smoking, and those exceptional cases in which tobacco acts as a poison in any quantity. No doubt tobacco has a great deal to answer for, because smoking, like other tastes, and more than most, so readily runs into excess. Its worst effects are observed in persons below puberty, in whom it induces a peculiar kind of sallowness, functional palpitation, diminished appetite, and inaptitude for physical or mental energy; to say nothing of the expense attending it. It is liable to induce a similar train of symptoms in those who contract a habit of smoking a little, and but a little, in excess. We are told that among young soldiers, palpitation and deranged action of the heart are common enough from its use. A medical officer, noticing the frequency of muscular tremors and unsteadiness of hand among smokers, kept some statistics in order to determine whether there was any great difference between these and the non-smokers as regards rifle practice. He was, however, unable to prove, statistically, that the latter enjoyed any superiority of accurate shooting power. Tobacco among the poorer and laboring classes certainly appears to exert considerable influence in restraining the appetite. A man can apparently also bear a larger amount of fatigue in a given time with a small amount of food and a pipe than with the same amount "without his baccy." Of course he could, however, only maintain this within certain limits. After all, the physiological effect of very moderate smoking has not yet been defined; and the mental state, like the flavor of the weed itself, is incapable of being expressed in words. A man of somewhat bilious temperament, with an irritable, susceptible, nervous organization—an individual whose nervous machinery wears and chafes in the working,—feels greatly soothed by the sedative influence of a cigar when his day's work is over; but he finds it increase his irritability when smoked before he commences his labors. The smoker tends to become a man of abstractions; facts and ideas, which at another time seemed hopelessly disjointed, will, with the aid of tobacco, arrange themselves in logical continuity under a state allied to what is called "unconscious cerebration." To the strategist planning a campaign in his closet with the aid of maps —to a poet, politician, or philosopher arranging the principles of his action,—tobacco is an aid by the property which it possesses of leading to mental abstraction; but to the man of action, who has often to analyze rapidly, decide promptly, and turn judgment into action, tobacco tends to induce hesitation and mental delay.—*Lancet.*

Western Dispensary for Women and Children.—Through the exertions of Dr. Mary E. Greene, this new dispensary has been opened at 218 Ninth avenue, below 25th street. It has been in practical operation since the 22d of March, and during the first month 79 patients were treated, showing the urgent need of such an institution in this quarter of the city. The act of incorporation was obtained on the 19th of April. The trustees are—John H. Keyser, Esq. (President), Miss M. A. McFarland (Vice-President), Mrs. S. F. Marsh (Treasurer), N. D. Wells, Esq. (Secretary), J. B. Cornell, Esq., Smith Sheldon, Esq,, N. C. Ely, Esq., John S. Augur, Esq., Mrs. Marshall O. Roberts, Mrs. C. C. Terry, Mrs. B. H. Van Anken, Dr. Mary E. Greene. *Consulting Physicians*—Drs. A. Jacobi, J. B. Reynolds, J. R. Leaming, and Foster Swift. *Consulting Surgeons*—Drs. B. Howard, C. C. Terry, Saml. B. Ward, and H. G. Piffard. *Attending Physician*—Dr. Mary E. Greene.

The Temperature of Sea-Water at Great Depths.—Several carefully-conducted soundings, made near the Faroe Islands, have revealed the fact that while the surface-water has an almost invariable temperature of 52°, the heat at great depths varies exceedingly. At a depth of 500 fathoms the temperature was 32°—a fact which is explained by the supposition of a cold Arctic stream flowing from the northeast and apparently coming between the fork of the Gulf Stream. Another interesting fact established by these inquiries is, that even at a temperature in the ocean almost that of our freezing-point, there are an abundance and variety of animal forms which could not have been predicated.—*Med. Times and Gazette.*

Dr. Paget on Delirium Tremens.—The following is an extract from a recent lecture by Dr. Paget, published in the *Lancet:* "I dare say you are all impressed with the general belief, which is still very prevalent, that delirium tremens depends mainly on abstracting stimulants from a person largely addicted to them. I will not say that it never depends on that; but what is more certain is, that it is much more likely to ensue when a person who is largely addicted to the use of stimulants leaves off food. So long as a man keeps up both the eating and the drinking, he is in little risk of delirium tremens. When either suddenly he leaves off eating and takes to drinking, or when gradually he diminishes his food and increases his drink, he is in the greatest danger of that disease. So that we come to this—which may seem paradoxical and immoral too—that a man who both eats and drinks too much is in less danger than a man who commits only one of those excesses. The double fault is less mischievous than the single: the eating countervails the harm that would ensue from the drinking. If we look about in society we may see this very plainly. There are still many persons habitually engaged in too great eating and drinking, doing both to excess; and they are in danger of breaking down in various defects of digestion and the consequent disturbances, but they are in no danger of delirium tremens. The people who are in that danger, and show the evil effects of drinking in the most marked form, are they who drink largely and eat little. And in all such cases as this drunken drayman's, the risk of delirium tremens is not in diminishing the drink, but in not seeing that the patient takes sufficient food.

"The admission of this fact has very much simplified the treatment of delirium tremens; and not simplified it alone but made it more successful. I can well remember when, twenty-five or thirty years ago, delirium tremens was looked upon as a thing very likely to be fatal. It was treated with large quantities of stimulants and large quantities of opium; and this course of treatment was supposed to be necessary to cure it. Now we do not materially increase the quantity of stimulant when a man becomes the subject of delirium tremens; and we give no excessive doses of laudanum. The thing that we especially look to in these cases is that by any means the patients should be fed—fed by the rectum if they cannot be fed by the stomach."

Poisoning by Bromide of Potassium.—The last number of the Reports of the Medico-Chirurgical Society of Bordeaux states that an epileptic woman, who took for one year bromide of potassium, in doses varying from thirty grains to an ounce per diem, at last fell a victim to the debilitating effects of this salt, and died in a state of prostration.

Expenditure of Vital Power in Repair.—Dr. Paget, in a recent lecture on fractures (*Lancet*), said of the process of repair: We have very imperfect means of ascertaining what amount of force is consumed in the repair of textures. But we do know that there is more force required for development of structures than there is for growth, and more force required for growth than for the ordinary maintenance of the structures; so that a continual expenditure of force is involved in the necessity not only of maintaining all the tissues of a limb in their natural condition, but much more in that of repairing any damage which that limb has sustained—that is, of producing and organizing a sufficient quantity of material for the repair. In this case a large quantity of tissue must be formed for the purposes of the repair, and a large quantity of pus will be produced, and in both these processes there will be a large expenditure of vital force. I suspect that if the question were asked, why the production of pus is a source of great exhaustion to patients, most of you would be puzzled to answer it. There is nothing in the materials or the chemistry of pus to explain the exhaustion. If you were to measure the quantity of pus which a man produces in the day, and give him the same quantity of milk to assimilate, he would, so far as materials are concerned, be on a nearly exact balance; and yet that amount of nutriment would not compensate for his loss of power in suppuration. I owe it to my house-surgeon, Mr. Butcher, to have suggested to me the real explanation,—namely, that it is not the mere loss of material, but the expenditure of force, which exhausts a suppurating man. If pus contained no organized materials, the system might produce the same quantity without exhaustion; but there is a continual expenditure of force in producing and organizing the pus-cells, which are the degenerating materials for repair, and in the production of which, doubtless, there is just as much expenditure of force as there would be in the production of so much embryo material of true tissues. This seems to be the explanation of the waste of force which goes on in the process of large repairs; in largely suppurating wounds or abscesses; it is the expenditure of force in the formation of structures however lowly organized.

A New Jew Hospital in Vienna.—Baron Anselm de Rothschild has given two hundred thousand florins for the erection of a hospital in Vienna for Jews, to contain one hundred beds.

Physiology of Audition.—An interesting work on this subject from the pens of MM. Béclard and Gosselin will soon appear in full in the columns of the *Gazette Médicale de Paris.*

Original Communications.

NEURALGIA AND ITS TREATMENT BY ELECTRIZATION.

By A. D. ROCKWELL, M.D., and GEO. M. BEARD, M.D.,

LECTURER ON NERVOUS DISEASES IN MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK.

No. II.

CONSTITUTIONAL NEURALGIA.

Constitutional neuralgias are those which depend on morbid constitutional conditions. Under this head are, therefore, included those which are caused by anæmia, by neurasthenia, and by the poisons of malaria, minerals, and the various toxic diseases.

The constitutional conditions that are most frequently the causes of this form of neuralgia are unquestionably anæmia and neurasthenia, or what is commonly known as nervous exhaustion, inasmuch as these conditions are themselves very frequently the results of poisoning of the system by mercury, lead, opium, alcohol, malaria, rheumatism, gout, etc.

Constitutional neuralgias demand constitutional treatment. Whatever may be their form or type, or on whatever condition they may depend, they are almost invariably, though not necessarily, associated with general debility, and therefore demand general tonics in addition to the special medication adapted for each case. Accordingly, constitutional neuralgias are oftentimes successfully treated by iron, bark, strychnia, phosphorus, oxyde of zinc, iodide of potass, etc., without the employment of any local or palliative measures whatever.

It must be confessed, however, that this method of internal tonic medication quite often disappoints. It fails to tone up the system to that degree of strength where it is able to throw off the painful symptoms. In some exceptional cases it irritates and aggravates both the general condition and the neuralgic pain. For these various reasons we recommend for such cases careful and judicious treatment by general electrization, which, from its remarkable tonic powers, may often succeed where internal tonics have failed. We have so often explained the details of this method of treatment that we will not here repeat them.

Dr. Francis Edmund Anstie, in his admirable monograph* on neuralgia, uses the following language in regard to the treatment of this affection by electricity:—"That as used up to the present time it has achieved no results which entitle it to more than a third or fourth rate place among remedies; but that if the desideratum of a low-tension continuous current, which can be readily applied for long periods together, can be obtained by means of apparatus of moderate portability and cheapness, it is probable that we may obtain that which will equal or excel in value any of the remedial measures which are at our disposal."

There are two reasons why Anstie, Radcliffe, and other neurologists of Europe have, to a certain extent, been disappointed in their experiments with electricity in neuralgia.

1. They have treated *constitutional* diseases *locally*. The method of general electrization seems not yet to be known of or employed by Rosenthal, Ziemssen, Althaus, Benedict, or by any of the foreign investigators in this department in England, France, or Germany. The published works of these writers are based entirely on localized electrization, and this is the method which they employ, even in constitutional disease. It is obvious that while this method of treatment may be successful in peripheric, reflex, and even in central neuralgias, it must inevitably fail in those which are constitutional.

2. The second cause of the disappointment of the foreign electricians is suggested by Dr. Anstie himself, viz., the want of a reliable, convenient, and *portable* galvanic apparatus. This want is excellently met by the air-tight galvanic* apparatus of Chester, which we recently introduced to the profession. We are justified in asserting, from our observation and experience in the treatment of neuralgia by electrization, that those who skilfully avail themselves of general electrization in the constitutional forms and of the galvanic current, in cases that *demand* it, will in time realize the hope expressed by Dr. Anstie, "that it will equal or excel in value any of the remedies at our disposal."

A considerable experience has taught us that a continuous current of low tension will, in some cases, prove efficacious in neuralgia where the faradaic is entirely inoperative. In the same way, also, we know that a continuous current of very high tension will allay certain neuralgic pains, and produce results that could not be obtained by the faradaic current, or by a galvanic current of low tension.†

Notwithstanding, however, these exceptions, and the opinion we have just recorded, we must confess that the faradaic current has, as a rule, in our hands, produced more favorable results in this affection than the galvanic.

It may be interesting to give, in a general way, the results of our treatment of the different varieties of this neurosis.

No. of Cases.	Recovered.	Approximately Recovered.	Decidedly Benefited.	Temporarily Relieved.	Not Benefited.	Temporarily Aggravated.
50	24	8	6	7	2	3

Many cases that received but two or three applications, and then discontinued treatment before any result was manifested, are not included in this enumeration. Some of the patients were suffering from mild attacks that would, in all probability, have yielded readily to medicine, or would have been speedily cured by unaided nature. In the majority of cases, however, the disease was persistent, and had been treated vainly by medication; and in most of the cases of failure we had good reason to believe that the cause was acute inflammation, or some organic change or lesion.

The distressing condition now under consideration occurs more frequently in women than in men. It is frequently associated with disease of the uterus; and more especially in connection with menorrhagia, we have witnessed constitutional neuralgias of the most persistent and distressing character.

* Vide Reynolds's System of Medicine. Vol. i., p. 752.

* Vide Medical Record, July 15, 1868.

† Boston Medical and Surgical Journal. New Series. Vol. 2, No. 17.

A lady whom we treated presented symptoms typically descriptive of the above condition. Her age was about 30; married, but childless. She had suffered from several miscarriages, and had been treated for a long time for ulceration of the neck of the uterus, that finally yielded to local applications. Up to her twenty-fifth year she had enjoyed a good degree of health; but after her first miscarriage she began to suffer from prolonged menstruation, attended with an excessive flow. This condition had existed but a few months when the patient began to experience certain wandering pains over the body, that became more marked at each return of the catamenia, until the paroxysms assumed a most distressing character. They were usually ushered in by tenderness and a sensation of oppression in the epigastric region. Throughout the whole attack the most acute pain would be felt over the stomach, and was attended by vomiting. Most of the body was, however, to a greater or less extent, affected by the disorder. The head became tender to the touch, the eyes intolerant to light, and the tongue and mucous surfaces of the cheek would be affected by a very annoying sensation of numbness. Several times a year she was prostrated by symptoms that were very sudden in their onset, and exceedingly alarming in character. The pulse, almost without warning, would fall to 40 or 45 in the minute, and become so feeble as to be hardly perceptible. The power of articulation left her, the anæsthesia of the mouth and tongue became complete, and her face assumed a deadly color and coldness. These attacks lasted from twenty minutes to half an hour, and were treated by the free use of brandy and carb. of ammonia. An application of the faradaic current, given one evening during one of her periodical monthly paroxysms, so relieved the distress that a quiet night was the result. It may be here stated that it was impossible for the patient to take opium in any form with benefit. Exceedingly small doses caused sleeplessness and the most intense excitement. Invariably after this we found that a similar application would greatly alleviate the pain. The main idea, however, was to strengthen the general system, and so prevent these attacks. For this purpose, on every other day she was treated thoroughly by general electrization, and it was not long before its good effects were manifest. In the course of a few weeks her powers of endurance had increased considerably; and when the menses appeared they were of shorter duration, and attended with a much less loss of blood than before. The neuralgic pains were incomparably less severe; and she rallied to her usual condition immediately. After remaining under treatment several months she was discharged as cured. Two years have elapsed since treatment was discontinued, but she has never suffered since from those occasional prostrating attacks of which mention was made. Her menses continue regular and normal; and it is only after great provocation that she ever experiences paroxysms like those of former days.

Formerly, according to our older authorities, neuralgia of a malarial origin was not unfrequent; but of later years, as civilization has advanced, and our system of drainage improved, especially in our Northern States, this cause has played a much less important part in the development of neuralgic pains.

When one is attacked with a persistent neuralgia that occurs in paroxysms, quotidian or tertian, and finally yields only to quinine, or quinine and iron, we naturally conclude (even though the district to appearances be not a malarious one) that a malarial influence is at the root of the difficulty. Neuralgias that follow mere cold and damp are of every-day occurrence, and are speedily dissipated by confinement within doors, or by some simple local application. No specific poison has entered the system, and no specific treatment is needed.

The influences of malaria seem to be specially directed towards the nervous system, and thereby may generate a large variety of disorders. Neuralgia is undoubtedly at times one of its most distressing manifestations.

As malaria exercises a remarkably depressing effect upon the cerebro-spinal and sympathetic systems, we can readily account for the severity of the neuralgic pains to which it gives rise.

A young man, who had been exposed to the hardships and dangers of a frontier life, was suffering from distressing pains that were confined mainly to the thoracic region on either side. Several months before we saw him, he was prostrated by an attack of intermittent fever that recurred several times after being apparently subdued.

One of the paroxysms was followed, by what his attendant called "*brow ague*"—a term not unfamiliar some years ago to the residents of malarial districts.

It was characterized by sharp, shooting pains all over the head and face, affecting, however, especially the forehead and eyes. The neuralgic symptoms soon abandoned these parts, but in a few days manifested themselves by an unusually severe paroxysm in the chest and side. For a number of months before he fell under our notice, attacks of intercostal neuralgia occurred at intervals of two or three days.

The patient experienced no distinct chills or marked febrile excitement, but the neuralgia was almost invariably ushered in by a creeping sensation of cold down the back and limbs. The exciting cause was undoubtedly a malarial poison. The diagnosis of neuralgia was unmistakably confirmed by the presence of that almost pathognomonic symptom, namely, pain on pressure over the spinous process of one of the last dorsal vertebræ. A gradual improvement took place under frequent general applications of the faradaic current. Quinine was administered at the same time, so that we cannot state in positive terms the exact amount of credit due electrization. It must be remembered, however, that quinine had been taken for some time previously, and was followed by no very marked results. The first application, administered during a paroxysm of ordinary severity, was followed by a very grateful amelioration of the pain, and in all subsequent attacks the same result followed.

Ten applications served to break the periodicity of the attacks, and to place him on a plane so little below the normal that it could be fairly said of him, that he was approximately cured.

"SICK HEADACHE."

Sick headache is a form of constitutional neuralgia at once very frequent, very distressing, and very rebellious to treatment.

The constitutional character of this affection is proved by its manifestations, its course, its causation, and its hereditary character. Like all the neuroses, it runs in families, and oftentimes skips a generation.

The nervous diathesis, which in the parent appears as epilepsy, may be developed in the child as sick headache, and reappear in the grandchildren as epilepsy again.

Chorea and hysteria, neuralgia and paralysis, hypochondriasis and insanity, seem thus to be interchangeable and varying manifestations of the nervous constitution. Sick headache is *a storm* in the system not

unlike the storms that we observe in nature. Like a storm, it comes on with haziness, dulness, heaviness, at once undefinable and oppressive. Its progress is marked by derangement of all the vital forces—probably by magnetic disturbances analogous to those which occur in nature—by general agony and distress, that render exertion of brain or muscle almost impossible, and existence itself a sorrow.

Like a storm, also, sick headache seems to relieve the system by driving out the impurities, equalizing the circulation, restoring the magnetic equilibrium. Therefore it often leaves the patient brighter and happier than before. When accompanied, as it often is, by vomiting, by abstinence from food, and by rest from all exertion, sick headache appears to be as much a remedial process, and as necessary and beneficial to the system, as a thunder-storm to the atmosphere. Sick headaches also are analogous to storms in their intensity and vehemence, and in the fact that, when in full blast, measures that aim to stay their progress are often futile.

The affection is usually accompanied by a sharp or dull pain in the forehead, and especially through the left eye. The general depression that accompanies the attack seems to bear no relation to the severity of the pain, for ordinary neuralgias, even when far more severe, are not half so depressing, and do not interfere to the same extent with the processes of thought.

It is more than probable that the sympathetic or ganglionic system is chiefly at fault in sick headache, and by this theory we may explain the fact that it is brought on or aggravated by such diverse causes. The vomiting, that is an accompanying symptom, sometimes relieves the distress, but frequently aggravates it. The common idea that sick headache is the result of the accumulation of bile, or indeed of any local disorder of the digestive apparatus, is mostly erroneous. In the majority of cases, the vomiting is itself the *result* of the attack of headache, which, in its turn, is the result of some cause that has acted injuriously on the *nervous system*, such as great excitement, anxiety, prolonged abstinence from food, or some undue mental exertion. It is probable that indigestion brings on sick headache chiefly through its effects on the nervous system.

The results of our treatment of this disorder by electrization have not thus far been very encouraging.

Neither our notes nor our recollection enable us to cite a single case of positive cure of a long-standing tendency to sick headache by the use of general or localized electrization.

We know a family consisting of father, mother, and five children, in which sick headache as an hereditary condition was a source of great suffering. Both the father and mother, in their early days, and for many years, were frequently the subjects of such attacks. Nothing seemed to be of any benefit in warding off the paroxysms, but as they advanced beyond middle life, the *interval* became gradually more prolonged, until now, at the age of 60, they seem to be entirely free from the affection. Two of the children, who are males, are prostrated occasionally by these seizures. They are not, however, so frequently affected, nor are the paroxysms so prolonged or so acute as in the case of the female portion of the family. Two of the sisters were under our care for some time, and were treated by electrization and by internal medication without experiencing very decided benefit.

In one the onset of the pain was very peculiar. Without the slightest warning, when at church or walking, at the piano or engaged in household duties, her vision will become blurred. Objects before her seem to dance about in every direction, and she is unable to recognize familiar faces. No barometer is so accurate in indicating storms as are these nervous symptoms in foretelling the commotion about to take place in her system. Soon the blur before the eyes partially disappears, and a most raging headache sets in. The arteries in the temples swell and pulsate with great rapidity and force. Sharp lancinating pains dart all over the head and through the eyes. As a rule, vomiting of a grumous-looking liquid, mixed with bile, accompanies the other symptoms. After lasting from 12 to 24 hours, the severity of the attack abates, leaving her in a somewhat debilitated state, from which she soon recovers. Electrization failed to give any relief. Bromide of potassium is the only remedy that has any effect whatever. Given in doses of 20 grs. as soon as the eyes become blurred, it will frequently lessen the severity of the pain in the head.

In the other case the headache is preceded by no blurring of the eyes, but is accompanied by an excessive and distressing sense of *nervousness*, causing the patient to throw her limbs and body about, and to "feel," to use her own expression, "as if she would fly." A number of applications of the faradaic current enabled her to overcome this feeling of nervousness, and thus relieved her of one very annoying symptom of her disorder. Generally, though not always, in the cases just related, these attacks of sick headache occur just before or during the menstrual period, and so would seem to be influenced in some measure by this function.

In some cases of sick headache we have succeeded in temporarily relieving the pain by electrization even in the midst of the application. This result, however, is by no means uniform. The true principle of treatment is to tone up the system by a persevering use of *general* electrization with other tonics, so that the paroxysms may be less frequent and less severe; in other words, to combat the *nervous diathesis* of which the sick headache is but a symptom.

IMPENDING SUFFOCATION FROM CAPILLARY BRONCHITIS.

TREATED WITH INHALATIONS OF OXYGEN—RECOVERY.

By ANDREW H. SMITH, M.D.,

LECTURER ON MATERIA MEDICA AND THERAPEUTICS AT THE LONG ISLAND COLLEGE HOSPITAL, N. Y.

Mary P., æt. 2½ years, a patient of Dr. Jerome C. Smith, was attacked with measles, the eruption appearing on the 11th of April. The disease followed the usual course until the 13th, when signs of pulmonary congestion with effusion into the bronchial tubes began to appear. By the forenoon of the 14th the condition of the child became very alarming; the lungs were filled with mucus, the breathing exceedingly rapid, the pulse too frequent to be counted; the face pale and with a dusky hue.

The warm bath and other treatment suggested by the emergency were resorted to with only temporary benefit. At 1 P.M. Dr. Jas. L. Little saw the patient in connection with the attending physician. He considered the case hopeless, and said he should not have been surprised if the child had died while he was in the house. Contrary to all expectation, the case continued without material change until 9 P.M., when Dr. Smith suggested that inhalations of oxygen should be tried, and I was sent for with that view.

On my arrival the condition of the patient was as follows: Pulse too frequent to be counted; respirations 80 per minute, accompanied by mucous râles audible at some distance from the bed; face pale and dusky; ex-

tremities cool, body excessively hot; extreme jactitation; eruption discrete, punctate.

About four gallons of oxygen were administered between 10 and 11 P.M. with little appreciable effect. At midnight the administration was resumed, and it was continued without intermission until 3 A.M. Within an hour the respiration had fallen to 60, and the pulse to about 160. By 2 A.M. the face had regained its color, the mucous râles were no longer audible unless the ear were applied to the chest, and the trunk and limbs were of an equable and moderate temperature and covered with a gentle perspiration. Child less restless, and inclined to sleep. At 3 A.M. I returned to my house, leaving a five-gallon bag of the gas to be administered as occasion might require.

At 8 A.M. I again visited the patient. It had slept quietly until 7 A.M., when the respiration again became difficult, and at the time of my visit was somewhat noisy. The inhalation of oxygen was again resumed, and continued for about three-quarters of an hour, when the respiration became easy, and was reduced to 48 per minute. From this time forward no further treatment was required except the administration of beef tea and a little brandy. The following day convalescence was fully established, and the child has now completely recovered.

REPORT ON
RESECTION OF THE LONG BONES.*

By J. W. THOMPSON, M.D.,

PADUCAH, KY.

CASE XVII. *Humerus, shaft: two and one-half inches removed.*—Capt. P. A. Reeves, Company G, 23d Ky. Regt., U. S. V., was wounded at the battle of New Hope Church, Georgia, May 27th, 1864, by a Minié ball, making a compound comminuted fracture of humerus. Two and a half inches of the shaft were exsected, on the 5th of the following July, by Dr. A. McGrow, of Cincinnati. The ends of the bone were kept in apposition by a sling passing around the neck and elbow. Complete bony union exists, with a shortening of two and a half inches, which was about the extent of bone removed. Capt. R. states that the arm is of great service to him.

The result of this operation is good. I examined the arm and made the notes of the case.

CASE XVIII. *Humerus, upper portion: four inches exsected.*—Col. J. M. Graham, of the Federal army, wounded 16th November, 1864, at the battle of Nashville, by a Minié ball, in the upper portion of the humerus. Four inches of the bone were exsected the day the wound was received. There is two inches' shortening. Abscesses have formed but once since the first four months. The arm is very useful. Dr. Hall, of Utica, Ill., operated. The notes of this case were furnished by Dr. W. Wardner, of Cairo, Ill.

Considering the seat and extent of this resection, it has proved very successful after the lapse of four years.

CASE XIX. *Humerus, upper third: three inches resected.*—Gen. W. F. Tucker (late Confederate army) was wounded, 14th May, 1864, at the battle of Resacca, Georgia, by a Minié ball, in left humerus. The operator, Dr. J. S. Cain, states that the ball must have passed directly through the bone, as it literally comminuted it for about two and a half inches, extending to within an inch of the great tuberosity. The resection consisted in sawing both ends of the bone smooth; the ends were then approximated as near as possible. There was a loss of about three inches of bone, the resection extending to within about three-quarters of an inch of the anatomical neck. There is three inches' shortening. The wound healed very promptly, and no abscesses formed around the seat of the operation. There is no bony union, therefore the patient has but little control of the arm except when resting it on a table or otherwise supporting it. In that position the functions of the forearm and hand are good. It is far preferable to no arm.

The result in this case is not as good as some that I have given, yet I do not think that the condition and usefulness of the arm at this time would argue against resection. The notes of this case were furnished me by Dr. J. S. Cain, of Okalona, Mississippi, who operated, assisted by Dr. R. W. Purnell, of Memphis, Tennessee.

CASE XX. *Humerus, upper half: six and a half inches removed.*—John A. J., a soldier (late Confederate army), was wounded at the battle of Peach Tree Creek, on the 20th of July, 1864, in the upper portion of the humerus, by a Minié ball. Resection was performed the same day, removing six and a half inches of the bone from the upper portion of the upper half. He has not been troubled with abscesses around the wound. There exists four inches' shortening. The functions of the limb are impaired, but the patient states that it is of great service to him, and that he would not be without it for any consideration.

This is, so far, the most extensive resection of the humerus among my collection of cases. As the arm is useful and so highly prized by the patient, it is not an encumbrance. Therefore the result proves, after four and a half years, that it is a very successful case of extensive resection of that bone. Dr. Roan, of Madison county, Tennessee, operated.

CASE XXI. *Humerus, upper third: four inches exsected.*—R. Mc., a soldier (late Confederate), was wounded in the upper third of humerus, by a Minié ball, at the battle of Atlanta, Georgia, July 28th, 1864. Resection was performed the next day, removing four inches of bone. There is shortening of about two inches. Functions of the limb are impaired to some extent, but improving daily, and it is of much benefit to him now. The arm has been healthy since the wound first healed. Dr. Barnes, the surgeon of 46th Tennessee Regiment, operated.

Judging from the gradual improvement in the functions of the arm, this may be termed a very successful case of resection. The notes of the last two cases, which are very interesting, were furnished me by my friend, Dr. G. H. Burnett, of Weakley county, Tennessee.

CASE XXII. *Wrist joint: "Resection of entire joint, including about half an inch of radius and ulna.*—Private Speers, Company C, 53d Georgia Regiment (late Confederate), wounded at the battle of the Wilderness, May 6th, 1864, by a Minié ball, through the right wrist, fracturing the radius and all the carpal bones. * * * The treatment consisted in placing the arm and hand in two straight splints, applied on the anterior and posterior surfaces, with extension used to prevent too close a proximity of the metacarpal bones to the ends of the radius and ulna. This was done with the view of avoiding anchylosis * * * * * The patient is now following his former occupation, that of a farmer, being able to perform as much manual labor as before the reception of the wound."

After four and a half years this continues to be a very useful limb, and is of great service to its owner.

* Continued from MED. RECORD, of Nov. 16, 1868, p. 414. The author will be thankful to the profession for records of similar cases See note to last report as above.

The notes of this case I obtained from the *Medical and Surgical Reporter* of Dec. 5th, 1868, the case being reported by Dr. J. J. Knott, of Atlanta, Georgia.

Case XXIII. *Humerus, lower third: three inches removed.*—J., a Confederate soldier, was wounded, May 18th, 1864, by a Minié ball, at the battle of Yellow Bayou, La. Resection was performed the next day, extending to just above the elbow-joint. The extent of shortening is two inches. No abscesses have formed. The arm is of no service; the hand is considerably atrophied.

The result of this case, as shown in the atrophy of the hand, proves that the principal nerves of the arm were seriously injured; therefore it was a case, not for resection, but for amputation. The notes of this case were furnished me by my friend, Dr. J. B. Bishop, formerly of this State, now of Athens, Texas.

Case XXIV. *Humerus, middle third: nearly four inches removed.*—J. B. B., a soldier (late Confederate), wounded at the battle of Sulphur Tressell, Ala., Sept. 25th, 1864, by a Minié ball. Resection was performed the day the wound was received, removing nearly four inches of the bone. There is two and a half inches' shortening. The functions of the limb are somewhat impaired, but the patient states that it is far better than no arm. He can use it to do any light work. Abscesses continue to form occasionally around the seat of resection.

Considering the extent of this resection, the result is good, as the arm is useful in performing light work. Judging from the notes of the case, it is my opinion that the presence of a small piece of necrosed bone is causing the recurrence of the abscesses, and that if this were removed, the arm would be healthy and of still more service. Dr. Alex. Thompson, then surgeon of the Regt., now of Humboldt, Tenn., operated. The notes of this case were furnished me by my student, W. T. Bennett.

(To be continued.)

Original Lectures.

PREVENTION AND TREATMENT OF THE DIARRHŒAL DISEASES OF INFANTS.

REMARKS MADE BEFORE THE OBSTETRICAL SECTION OF THE NEW YORK ACADEMY OF MEDICINE, MAY 17th, 1869.

By STEPHEN ROGERS, M.D.,
NEW YORK.

Mr. Chairman—As a text for the few following remarks, I present a sentence from the address of Sir Thomas Watson, on the occasion of his retiring from the presidency of the Clinical Society of London, because it expresses accurately my own sentiments in reference to the subject before us, and, no doubt, those of many of the Fellows also. "What I deprecate"—says Dr. Watson—"what I would fain see altered, what it is one great end of this Society to do away with, is the vagueness of aim, the uncertainty of result, the merely tentative nature of too many of our prescriptions."

In no department of medicine is vagueness of aim, uncertainty of result, and consequently tentative practice, more conspicuous, and I may add more disastrous, than in diseases of infants, and especially diarrhœal diseases. We lose our aim first by forgetting, or by never knowing, the anatomy and physiology of the infant; and we are forthwith environed by complications and inexplicable phenomena which befog every effort we make.

The digestive apparatus of the infant is, in some respects, like that of the carnivorous animals, arranged for highly animalized and easily assimilable food. This alone should teach us that the farinaceous and vegetable substances should not enter the diet of young infants. Infants, like animals and like adults, require water; and while their proper food, milk, contains all the water usually demanded, any accident or disease which cuts off the accustomed supply of milk, as well as any circumstance which greatly increases perspiration, such as warm weather, is certain to induce thirst, for which water is the true remedy. The infant intestines, like the adult, are provided with a reservoir for the reception, detention, and absorption of the assimilable fluids. This organ is the *large* intestine, or *colon and cæcum* and the rectum included, and has not, like the stomach, and a considerable part of the small intestine, any digestive function. No part of it, therefore, can perform digestion, from the anus to the caput coli; it can only absorb; and substances which are simply in suspension, not in solution, are not appropriated when introduced into this portion of the intestine. Substances, in short, which are not transmitted through membranes by osmosis, are not utilized by the rectum or colon. As an absorbing organ, however, the large intestine is very active. There can be no doubt, I think, that the digestive portions of the intestinal tube of the infant, as well as the absorbing portions, are liable to the same diseases that affect them in the adult; and as diarrhœa is one of the results of disease in both portions, in both adults and infants, we will make our classification upon this understanding. Commencing with the stomach, I will say that diarrhœa *from indigestion* is, perhaps, quite as frequent, if not much more so, in infancy as in adult age. It is very liable to occur in warm weather, to infants both breast and bottle-fed, on account of their taking more milk than the stomach can dispose of, and more than the system requires, the child taking it for thirst instead of for hunger. It is also liable to occur in children bottle-fed on milk too much diluted, the digestive action of the gastric fluids suffering embarrassment by the very great amount of fluid, to say nothing of the grave derangements of the digestive organs which are produced by insufficiency of nutritive material given in such habitually dilute food. The slow starvation produced by insufficient diet, and by diet which, though sufficient as to quantity, is unsuited as to quality, has many sympt ms in common with much of the fatal infantile diarrhœa. This diarrhœa of indigestion is usually ushered in by more or less sudden anorexia, vomiting, thirst, nervous disturbance, and heat of skin, followed in a few hours by diarrhœal discharges, containing more or less undigested food. Unless the cause is repeated, the attack generally subsides with the expulsion of the offending material. It is therefore an exceedingly easy disorder to treat in both the young and old. The treatment, as a rule, need be nothing else than *physiological* and *physical* rest. This is attained by withholding food—a practice readily followed, for the patient does not desire food—quieting thirst by cold water without stint or measure,* keeping the patient still, and finally, when desire for food may return, to allow it in moderate amounts, and, if it be milk, *undiluted.*

* I am ready to stake my reputation as an observer, student of nature, and practitioner, upon the declaration that there is no support in physiology, nor in pathology, nor in practice, for the popular and extensive professional idea that water, to satisfy thirst, can do any infant harm. The idea that it distends the stomach, that it weakens the organ and prevents digestion, no matter when given, is all clap-trap, without a shadow of foundation in truth. This is a very mild term to use relating to these fostered ideas, if we take into account the untold misery, and even mortality, they annually produce in the diseases of the prima via of infants.

In bottle-fed babies whose milk has been diluted in the usual manner, from one-half to three-fourths water, nothing can be more striking than the change to undiluted milkman's milk, except, perhaps, when the dilution has been with barley, or other farinaceous decoction. Of all the compounds fruitful of infantile diarrhœa, in our city especially, those of farinaceous decoctions with milk rank first.

Children over six months often desire, and are benefited apparently by farinaceous food occasionally, but the child should be allowed its choice to take it or not. This cannot be done by mixing it with its milk. All such articles should be given by themselves. The observation of these few plain rules for the treatment of the diarrhœa of indigestion, will be quite sufficient for most cases, medicinal aid being gener lly unnecessary. To avoid these attacks of diarrhœa of indigestion during our summers, every mother or nurse should be instructed to offer cold water to the infant, whether breast or bottle-fed, before offering it its food, for by so doing the infant has the opportunity to quench its thirst with water, preserving the unembarrassed energies of the stomach for the digestion of the food.*

Following the intestinal disturbance produced by an attack of diarrhœa of indigestion, the annexed train of symptoms are very often met with:—

Frequent alvine dejections of greenish, very fluid, and fœtid character, frequently containing portions of undigested casein coagulum—if its diet include milk—irritable stomach, and variable appetite, and almost continual thirst. Its discharges may be yellowish, fœtid, and watery when voided, but become green after a little exposure, generally containing mucus; and there is usually some tenesmus. The child does not have very marked fever, except at varying intervals, emaciation progresses more or less rapidly, and the tongue, as well as the anus, indicate by their redness, enlarged papillæ, and excoriation, a profound disturbance of the alimentary canal.

The case is one of chronic *colitis, the usual diarrhœa of infancy.* The colon, as a receiving and absorbing cavity for the excrementitious and alimentary matter poured into it by the small intestine, and by its own excretory glands, refuses to perform its functions; consequently, as fast as material is lodged in it from above, it is hurried on through to the rectum and discharged, not only adding to its own irritability, but not permitting the absorption of much of the alimentary matter provided for it in the canal higher up. During the transit of a fresh supply of such material through the diseased colon, the child often has an intense febrile heat of skin, and not unfrequently convulsions, which terminate life. Both the fact that the morbid changes found after death from diarrhœa in infancy are chiefly in the large intestine, and the phenomena of the disease, show conclusively that it is a *colitis* almost exclusively.

When we add to these evidences, the results of the *treatment* of colitis, I see no room for a doubt that the usual diarrhœa of infancy, of which so many children die among us annually, is simply colitis. The treatment is clearly to avoid the causes which set up this inflammation, and to lessen the already existing inflammation and irritability. This is accomplished by withholding food as much as possible, keeping the desire for drink satisfied with water, and thus securing physiological rest for the colon. This rest may be more completely effected by calming its pain and irritability by means of anodynes thrown over part of its surface, viz., the rectum. But in this use of anodynes we should never forget that neither the rectum, nor any other part of the large intestine, can digest; that its function is to absorb, and, therefore, nothing should be introduced into it, except solutions, or substances easily soluble in water, and therefore in the moisture of the mucous membrane. Nothing but evil can come from introducing the time-honored *starch, gum-water, mucilage* of various kinds, oil, albumen, &c., into a diseased and irritable colon or rectum. The watery portions of these preparations are alone absorbed, if retained long enough, and the solid residue is left behind, doing much more harm than good, and often more harm than the combined anodyne does good. The idea that in some forms of inflammatory disease of the large intestine, its usual lubricating covering of mucus is absent, and any of the gummy or mucilaginous substances may in such case be introduced with advantage as a simple protection of the denuded tissue of the mucous membrane, is, to my mind, totally destitute of the support, not only of demonstration, but of probability; and so far as my individual experience may permit me to judge, has not practical support either. Poultices applied to the mucous membrane of the rectum, no matter of what bland substance they be composed, are foreign and excrementitious, and give no rest to the bowel.

Alcoholic solutions, unless largely diluted with water, are liable to irritate, and therefore objectionable. Watery solutions, which leave no solid residuum, are clearly the most preferable, and of all preparations, the morphine salts in solution I think best. Where there is not very great irritability of the rectum, the much-used cocoa-butter suppository is a convenient and useful form of introducing the morphine, or other very soluble substances. The warmth of the bowel slowly melts down the mass, allowing the salt to come in contact with the bowel whose moisture dissolves it, and it is then absorbed, while the butter remains as excrement. But the simple watery solution of sulphate of morphine is the least irritating as well as the most active form of anodyne enema. Its dose by the rectum when thus introduced is rather less than by the mouth, and its action is more prompt and more effective to relieve tenesmus and irritability of the large bowel. I have often seen a single injection prevent all movement of the bowels for ten to twelve hours, in cases where the movements before it were almost incessant. Many adjuncts to this treatment will suggest themselves to any educated physician, and I therefore need not mention them here. I will add, however, that I rarely employ any other medication for the diarrhœa of infancy of this degree; and, so far as my observation enables me to judge, much of the favorable results claimed by our practitioners for their favorite prescriptions, such as minute doses of calomel, Dover's powder, ipecac, the sulphite salts, the bromine salts, and the various astringents, alkalies, and anodynes and disinfectants, is due to the coincident modification of the diet and care of the child. A diarrhœa, like that just described, of no great severity, having existed for some days, perhaps, suddenly suffers a great increase in the frequency of the movements of the bowels, nausea and vomiting come on, the skin becomes hot, the thirst is urgent, there is more or less extreme restlessness and actual or threatened convulsions. The dejections are, if possible, still more fœtid, watery, and of various colors from black to yellow; they are often streaked or dotted with blood, and the fluid portions sometimes stain reddish the clothes upon which they fall; there is

* Much favorable testimony has been furnished the profession, relating to the employment of pepsin in the diarrhœa of indigestion of children and infants. I have not met with cases in which a resort to this agent became necessary, and can therefore offer no experience with it. But as the principle upon which its use is based has a well-known physiological foundation, I am decidedly disposed to adopt it in cases which are not promptly controlled by proper physiological feeding.

sooner or later mucus intermingled with them, the tenesmus becomes tormenting, the anus red and excoriated, and the tumefied mucous membrane of the rectum shows a tendency to descend. This has now become *acute colitis, inflammatory diarrhœa* of some authors, or *dysentery* of others. Its treatment does not differ from that already mentioned for colitis, except that it must be conducted with greater energy and watchfulness.

Withhold food as strictly as possible, give cold water *ad libitum*, arrest the pain and irritability of colon by morphine injections, and keep the patient as quiet and cool as practicable, for this is a disease of hot weather.

The use of pure cold water in the irritable stomach of infantile diarrhœa, is theoretically opposed by many practitioners, on the ground that it keeps up the vomiting, as they allege, and furnishes indefinite quantities of fluid to protract the diarrhœal discharges. Practically, I have never seen this theory supported, unless the water were combined with some alimentary substance. It is surprising, however, to see how little milk, or arrowroot, or barley, or any similar substance, combined with water, will keep the vomiting and diarrhœa going on to a fatal issue. Pure cold water, on the contrary, will soon arrest vomiting, will give physiological rest to the stomach and intestines, will furnish the much needed fluid to the blood, and thereby calm nervous agitation and afford physical rest and restoration.

As to the treatment of the prolapsus of the mucous membrane of the rectum which we occasionally see follow one of these attacks of colitis, I will add that I have found nothing of any service which does not arrest the irritability of the part, and the frequent movements of the bowels which attend it. Any agent which secures prolonged repose of the colon and rectum, will cure this condition. The most certain means which I have employed is an injection of the solution of morphine, thrown up immediately after reducing the prolapsed membrane by a cold-water compress, and putting the patient to bed. The bowels do not move for twelve to forty-eight hours, and recovery of tone and natural condition progresses rapidly. A single application of this kind is generally sufficient, and I have seen very few resist more than two or three. There is still another form of most fatal diarrhœal disease of infancy, presenting the following train of symptoms: A mild form of diarrhœa having generally existed for a few days, there suddenly come on vomiting and purging of a copious watery substance, at first containing feculent material, but subsequently an almost pure, opalescent, and nearly odorless fluid, without apparent pain or tenesmus. There is total loss of appetite, great thirst, the surface of the body rapidly becomes cold, the skin shrivelled and moist; in short, a more or less rapid collapse ensues, which, as a rule, terminates in fatal convulsions, or anæmic coma, and does so generally within twenty-four hours after the attack. This is the form of diarrhœa, and the only form, in my opinion, to which we should apply the name *Cholera infantum*, and when compared with all the cases of diarrhœal diseases we see, I think the Fellows of the Academy will agree with me in saying, that it composes a small minority of them.

I have no suggestions for its treatment that would not occur to the mind of any physician.

Unquestionably the wisest plan in this, as well as in all the diarrhœal diseases of infancy, is to prevent them if possible. This we may do much to achieve by management of the food. While there is too much evidence to permit us to doubt that, if not a *cause*, dentition at least *attends* a period of development of the digestive apparatus of the infant, during which it is liable to diarrhœal disease, we cannot close our eyes to the fact that very large numbers of our infants die before dentition or any such development commences, before six months, and die of diarrhœal disease. Any extended remarks upon the subject of the diet of infants here I deem uncalled for, and I therefore shall say but little. We, however, all accept the proposition as self-evident, that the best food for the infant is good breast-milk. We are all quite as thoroughly convinced that this is very often not obtainable. Now comes the question as to what is the best substitute for breast-milk. That the milk of some animal should compose the basis of the substitute all, with few insane exceptions, agree. Great numbers of modifications of the milk of the cow —the only available one in this part of the world—have been advocated, chiefly in the degree of its dilution, and the addition of various farinaceous substances. But my observations have most thoroughly convinced me that the theoretical dilution of cow's milk with the view of rendering it similar to the milk of the human female, is an unscientific delusion. It is founded, in the first place, upon the false premises, that our Croton, or other water, is a similar fluid to the watery portions of human milk. It still further supports itself upon the unfounded assumption, that diluted milk of the cow is more easily digested than the original fluid, on account of the excessive proportion of casein.

There is no means of demonstrating the theory that the addition of water to the milk of the cow renders it more digestible in the infant stomach. But, on the contrary, any one can demonstrate almost any day during our summers, that the labor of the infant's stomach is much easier in the digestion of the best milkman's milk we can obtain here, than it is in the digestion of the usual dilute form, and still less than when diluted with farinaceous decoctions. Providence has wisely arranged this matter so that if the milk—the food intended for the infant—be variable as to its constituents, the stomach has the power to digest and more or less completely appropriate them. Hence the milk of the human female, which is often richer in all of its constituents than many samples of the milk of the cow, is digested, and the child flourishes; and on the contrary, the milk of the cow, which possesses many per cent. more of oil and casein than the average human milk, is easily digested, and the child thrives satisfactorily. The essential points in the whole matter being, that the milk given contain nutrient material within a reasonable bulk, sufficient for the nutrition of the child, and that it be given soon enough after leaving the breast or udder to be sweet and good. I avail myself of this opportunity, as I uniformly do of any which presents itself, to denounce the doctrine of dilute cow's milk as infant food, as one destitute of reason and extremely dangerous. If this be true of milk simply diluted, what must be the state of the case when diluted with vegetable and farinaceous substances? For about ten years of my professional life, I have watched this subject closely, having had several children of my own to raise on the milk of the cow. I have yet seen no reason for diluting the milk sold in this city, to make it fit food for the infant at any age. On the contrary, I have often found a necessity for richer milk than could well be obtained here. My experience has satisfied me, that a great part of the difficulty and danger attending the raising of children by hand, as it is called, proceeds from this tinkering of the milk used. I regard the raising of a child with a tolerably good organization as about as easy on the milk of the cow as on the breast. The essential points for the mother or nurse to observe are, that the milk be sweet, that is to say, not soured, that it be warmed to about 100°, that it be taken from

the bottle through finely perforated nipples, that the bottle and nipple be kept clean, and finally, *that the child have all it will take.* And here I would repeat the precaution before alluded to, not to give the child milk during the very warm weather of our summers, till water has first been offered to it, else it will often take milk in inordinate quantities simply because it is thirsty, and will thus be overfed and injured. Children at the breast are often injured by this neglect. To those who may possibly regard these views of infant feeding as radical, and perhaps dangerous, I feel bound to say that I am supported by unquestionably competent authority. While writing these pages, I had the extreme gratification of receiving the pamphlet paper on "Food for Infants," lately read before the Medical Society of the State of Pennsylvania, by Dr. Hiram Corson of that State. The Dr. has extended his observations through more than thirty years, and they have obviously been well and carefully conducted. He says, "I feel quite certain that it is almost as easy to raise children by hand, if they have an abundant supply of good undiluted cow's milk, as it is by the breast." And he repeats this expression of belief, adding, with great propriety and force—as his observations are conducted in the country and villages where good milk is easily obtainable—"if, then, in the country, where the milk is good, the child should have all it will take undiluted, how very important that no water should be added to the milk brought to cities by milkmen. It is not too much to say that before it reaches the citizen's door it is only two-thirds milk." He details the symptoms he has often seen presented by infants fed, but only half nourished, on dilute milk, and those descriptions accurately apply to great numbers of the diarrhœal disease we see here. His experience leads him to conclude that thousands of infants who die annually of these diseases, really "die from want of food." "They are starved to death," says he, speaking to the profession, "and we are not blameless." Again he says: "Little children not only need plenty of good food, but, even those who are fed at a full breast, also need occasionally a little cool water as drink."

This sentiment I am delighted to see as thus generally stated, but in the warm weather of our summers it is especially applicable. Dr. Corson very justly wonders that these facts have not more generally impressed themselves upon physicians, and that as a consequence the public teachers with few exceptions, and the text-books of to-day, are promulgating the same doctrine and giving the same rules that they have for the last hundred years, changing, if at all, for the worse, for higher dilutions, and in the face of the frightful fact that infant mortality is increasing rather than diminishing. He very properly suggests that we try a change, which can hardly be for the worse. This is very grateful support to the sentiments I uttered many months ago in the pages of the RECORD of Oct. 1st, 1868, p. 341. With this care to properly feed infants, much, very much, can be done to prevent their diarrhœal diseases, especially diarrhœas from indigestion; and with these simple measures for the treatment of chronic and acute colitis, vastly better results, I am convinced, may be obtained.

The comparative experience of many physicians, male and female, in the city and in the country, confirms me in this belief, which I formed from an extensive public practice added to that on my own family, and in private.

DR. LIVINGSTONE.—The French Academy of Sciences has just elected this distinguished explorer as a corresponding member of that body, by a vote of 44 out of the 56 electors present.

Progress of Medical Science.

VERTICAL DISLOCATION OF THE PATELLA.—George M. Sternberg, M.D., Asst. Surg. U. S. A. (*Med. and Surg. Reporter*), publishes the subjoined case of vertical dislocation of the patella: A colored cavalry soldier, while riding his horse, came in violent collision with another mounted man. He dismounted, and finding that he was unable to walk, was carried to his tent. Upon examination, his left leg was found extended and all motion of the knee-joint prevented by the patella, which was tilted upon its outer edge, the anterior surface looking outward. He was brought immediately under the influence of chloroform, and flexing the thigh upon the pelvis, the patella was grasped with the right hand, and the ankle with the left. Then at the same moment the leg was flexed upon the thigh with the left hand, and with the right the patella was tilted over to its place. The reduction was accomplished very easily, the bone coming to its place with a loud snap. An hour after, the man was walking around without pain or inconvenience.

HÆMORRHAGIC INFARCTUS OF THE RETINA DURING LIFE.—Dr. H. Knapp, of this city, observed, with the ophthalmoscope, an *hæmorrhagic infarctus of the retina during life.* It resulted from an embolic obstruction of one of the principal retinal arteries of a patient suffering from endo-carditis. All the peculiarities of hæmorhagic infarctus, which up to this day have been studied only on the cadaver, were directly seen in the living body, and followed during the entire course of this interesting disease. The obstruction of the artery remained, but collateral circulation set in, the retinal changes disappeared, and a triangular defect in the visual field, corresponding to the choked artery, was the only bad consequence left behind.

A MONSTER.—A human monster, a female child with two heads, was born a few days ago at Zerbst. A careful examination has shown that the spinal column divided into two at the first of the true vertebræ, and that from this point two perfectly developed necks and head proceed. The breast is half as broad again as is usual, the limbs simple and well formed. We have not yet heard in how far the internal construction of the breast is simple or complex. It appears that the child died in the course of birth, from the pressure of the two heads against each other.—*Galignani.*

THE ABUSE OF SULPHUR IN ITCH.—Dr. Tilbury Fox believes sulphur much abused in the treatment of itch, and says in a paper in the *Lancet*:—Sulphur is a remedy which can do a great deal of good and a great deal of harm. That I may prevent some of the latter, I again call attention to one or two therapeutical points of practical importance touching the cure of itch, which by reason of its very commonness is apt to have a stereotyped treatment. Now scabies is usually treated as though all the eruptive phenomena seen in the body of a scabious subject were really "scabies;" that is, as though there were some parasite to destroy wherever a rash exists, and acari were present in or immediately about the papules and vesicles of which the eruption in different parts of the body is composed. The fact is, that in the early stage of itch the acari are almost entirely confined, if not absolutely, to the hands in adults, and to the region of the buttocks and feet in children. In chronic scabies, or in disease derived from contact with a person affected with chronic scabies, acari are no doubt present elsewhere, and in parts other than the hands. But in the general run of cases the essen-

tial seat of scabies is the interdigits and the wrist. The mass of the eruption about the arms and the body is secondary to the irritation induced by the acari about the hands, and if the acari there be destroyed, the "sympathetic" eruption, if not artificially aggravated, vanishes. Sulphur is the best remedy for the destruction of the itch insect, therefore it should be used (I speak of the majority of cases) to the hands where the acari are; and as it is an irritant to inflamed parts, it should not be hazardously applied to the parts where the secondary eruption exists, for it can serve no other purpose than that of increasing the eruption. In treating scabies we should use the specific remedy in recent cases as freely as we like to the interdigits and wrists *only*, and apply *soothing remedies to the general surface;* that the sulphur should be in small quantity, and that sulphur baths should be discarded. I employ half a drachm to an ounce of lard, with three drops of creasote, and five grains of ammonio-chloride of mercury, a little olive oil, and a drop or two of essential oil. In chronic itch, however, this form of specific remedy may be applied to all eruptions of discrete character. I prefer the three days' treatment of scabies, keeping on the same linen, and then having a thorough cleansing with soap and a clean change. Less after-consequences follow this than more heroic and rapid modes of cure.

Mustard Poultices.—M. Gubler, at a late meeting of the Academy of Medicine of Paris, stated that M. Schaffner, a pharmacien of Lyons, prepares sinapisms as follows:—Some waterproof substance is spread on one side of a sheet of blotting-paper, and on the other side a layer of a spirituous solution of essential oil of mustard.

Cancer of the Breast.—An Italian medical journal recommends the following as an application in cancer of the breast: Concentrated acetic acid, 15 parts; creasote, 3½ parts; water, 450 parts. A case is mentioned in which a cancer was removed and cicatrization completed in six weeks. The application was made on charpie four or five times daily.

Influence of Bile on the Salt of Quinine.—A mixture of bile and of solution of sulphate of quinine produces a rapid and reciprocal decomposition, forming sulphate of soda and glycocholate of quinine, with an excess of free glycocholic acid. The glycocholate of quinine presents itself as a dense resinous mass, insoluble at low temperatures in water or dilute acids, but soluble in ammonia and alcohol. Thus the salts of quinine may be absorbed by the stomach; if they pass into the intestines they are lost in consequence of the insoluble nature of the compound resulting from their admixture with the bile.—*Giornale di Medicina.*

Treatment of Somnambulism.—Professor Pellizari, of Florence, has published in the *Gazetta Medico Venetia* a new means of preventing and curing somnambulism, which, he says, he has used in eighteen cases with complete success. Every night, on going to bed, the somnambulist applies round his leg a few turns of thin copper wire, sufficiently long to communicate with the ground, and in the morning this conductor is removed. In one of the cases reported the conductor acted perfectly as a preventive, and in the others it had cured radically the somnambulism. The property possessed by the metal to dissipate promptly the magnetic somnambulism, and the rational hypothesis that this means can also cure spontaneous somnambulism, had induced the author to experiment by this method, which has yielded him very remarkable results.

Case of Salivary Calculus.—Wm. H. Thrift, D.D.S., of Boonsborough, Iowa (*The Missouri Dental Journal*), reports a case of salivary calculus which came under his observation in May last. A male called and desired him to examine his mouth, and on examination a deposit was discovered, concerning which he made the following statement:

"The difficulty commenced about his twelfth year, and has from that time gradually increased.

"The deposit has been entirely upon the right side, the teeth and gums upon the left side having been healthy."

The deposit was upon the first superior right molar, as large as a walnut, inclosing the tooth and roots, and on removing it the tooth necessarily came away also, leaving the jaw-bone exposed. The molars and bicuspids of the same side were also covered with tartar, but absorption of gums and alveolar process have not gone on sufficiently to destroy the usefulness of the tooth. After removing all traces of tartar the patient was directed to use astringent washes, and he had the satisfaction of soon seeing the mouth in a healthy condition. He accounts for the tartar being found only on one side by the fact that he masticated entirely on the left side.

Penghawar Djambi.—A writer in the *Missouri Dental Journal* recommends the application of the Penghawar Djambi in hæmorrhages of the mouth. It acts promptly, is simple in its application, and there is no disagreeable taste nor unpleasant action observed in its use, objections which are often urged against other remedies of this class. This substance is the hair-like scales with which the stems of a certain species of tree fern, found on the isle of Java, are covered. As found in commerce, it presents a soft, silky, fibrous appearance, resembling asbestos, except in color, this being of a brownish yellow. In cases where continued hæmorrhage follows the extraction of teeth, if from the margins of the gum, a compress made of the broken fibre applied to the bleeding surface, and retained there for a few moments, will shortly arrest it. When the hæmorrhage is from the bottom of the socket the styptic should be rolled into a firm tent as large as the cavity in the alveolus, and long enough to fill it. Introduce the tent with a pair of pointed tweezers, and with a smooth, blunt-pointed instrument force it down to the bottom of the cavity, and retain it there for a short time with a compress. It does not stain or tarnish the instruments used in its application, an objection to which all other styptics are liable.

Chloride of Zinc in Castor-Oil Collodion in the Treatment of Soft Chancre.—M. Friant (*Schmidt's Jahrb.*) employs, in order to destroy the soft chancre with as great certainty and facility as possible, the chloride of zinc, in a mixture of 1 to 10 of castor-oil collodion. In using the remedy, the chancrous surface is first carefully dried with charpie, when a few drops of the caustic fluid are applied to the ulcer by means of a pencil. The caustic dries and forms a very thin white pellicle upon the surface of the ulcer.

The Preparation of Unguentum Hydrargyri Nitratis.—Dr. George M. Hambright, Chicago, Ill. (*The Pharmacist*), submits the following formula for the benefit of those who are interested in dispensing a smooth *Citrine Ointment*, with a *fine yellow color* and good consistence, instead of a crumbling mass with a variety of colors:

Take of mercury, one troy ounce; nitric acid (1·42), two troy ounces; leaf lard, eight troy ounces; olive oil, four troy ounces.

Dissolve the mercury in the acid, then heat together the lard and oil in a porcelain vessel; when the lard has

melted, slowly add the mercurial solution, stirring briskly with a wooden spatula, then raise the temperature gradually until the mixture begins to effervesce, remove from the fire and continue to stir briskly until the reaction is thoroughly established, after which an occasional use of the spatula will suffice until the ointment stiffens. He does not consider it necessary to raise the heat so high as 200 degrees. The proportion of acid and mercury is about the same as in the officinal formula. Olive oil is substituted for neatsfoot oil, not only because it is more readily obtained than a good quality of neatsfoot oil, but it yields a finer product, devoid of that strong rancid odor which usually accompanies the ointment.

Carbolic Acid Plaster.—Joseph Hirsh, M.D., of Chicago, Ill. (*The Pharmacist*), suggests the use of carbolic acid in a more portable form than the three shapes in which carbolic acid has been used, viz., that of carbolic oil, of carbolic lotion, and that of carbolic paste. For this purpose the carbolate of glycerine is recommended, which, with isinglass, forms an even, homogeneous mixture capable of being spread on cloth or paper in the same manner in which ordinary court-plaster is prepared. The presence of glycerine prevents the complete drying of the isinglass, and preserves it in that elastic, india-rubber like state, which prevents the escape of any carbolic acid.

Adulteration of Tartaric Acid.—F. Mahla, M.D., of Chicago, Ill. (*The Pharmacist*), says that nearly every sample of tartaric acid which he has examined was contaminated with lead. This may be discovered by passing sulphuretted hydrogen gas through a solution of about one-half ounce of the acid in three, or four, or five ounces of water, when a black precipitate, or if the proportion of lead is small, a brown coloration makes its appearance. This contamination is undoubtedly produced by the fact that most of the commercial tartaric acid is crystallized in leaden vessels.

Fifteen Cases of Prolapsed Funis.—M. Yarnall, M.D., St. Louis, Mo. (*The Medical Archives*), publishes a report of fifteen cases of prolapsus of the umbilical cord, occurring in the practice of Dr. T. L. Papin, of that city, in which reduction was effected by the postural treatment advocated by Prof. T. G. Thomas, viz., by placing the parturient woman on her elbows and knees, the chest being depressed as much as possible, and the pelvis elevated so as to cause the abdominal viscera, with the uterus and its contents, to gravitate as far as possible from the superior strait. In this position the bulk of the prolapsed portion being held in the palm of the hand, the fingers and thumb extended, embracing the cord, it is, by gentle manipulation between the pains, gradually passed back within the womb and beyond the promontory of the sacrum, and held in that position until the fœtal head becomes engaged in the superior strait, thus preventing a recurrence of the prolapse. The woman is then gently placed on her left side, and delivered in the usual manner.

Of the fifteen cases, ten were born alive and did well; of the five remaining cases—all of whom died—one was from subsequent compression of the cord with the forceps, after the cord had been successfully returned; in another, the cord was completely severed with the same instruments; one died from the too free administration of ergot; and the remaining two were cases in which the children were in the transverse position, and no retaining of the cord was possible, as there was no engaging portion of the child to keep it up, and by the time the uterus was sufficiently dilated to turn and deliver the children were dead.

In every case the cord was fully prolapsed, being in some entirely out of the vagina, and in several it was extraordinarily long and large.

Action of Calabar Bean on the Eye.—A drop of the extract in glycerine (1 part to 4) applied to the eye causes contraction of the pupil; perhaps so great as to reduce the aperture to a mere speck or a state of occlusion. It begins in about ten minutes, often attains its maximum in thirty minutes, and lasts about three days, gradually subsiding. It is limited to the eye to which the application is made. The pupil of the other eye is often slightly dilated The effect is due to a peculiar alkaloid in the bean, called eseria or physostigmine, contained in the kernel or white interior.

Treatment of Post-Nasal Catarrh.—Dr. Horace Dobell (*The Practitioner*) comes to the conclusion that the best application in catarrh is the combination of a medicated snuff and a medicated lozenge. The snuff consisting of camphor, tannic acid, white sugar, and high dried Welsh snuff, of each ʒ i. The lozenge consisting of camphor, gr. ij.; guaiacum, gr. i.; tannic acid, gr. ½; hydrochlorate of morphia, gr. 1·36; tincture of benzoin, ♏. ij.; white sugar, gr. xix.; acacia gum, gr. ij. From three to four lozenges should be taken each day, one of which should be taken at bedtime, and one on waking in the morning. The snuff should be used once in the morning, once in the evening, and once or twice in the day; it is best applied by means of a little elastic tube, one end of which is charged with snuff, and pushed into the nostril, the other end put into the mouth, and the snuff blown up the nose with a sharp puff. The snuff should be discontinued should a fresh attack of nasal catarrh happen to set in, but its use must be resumed on the subsidence of inflammatory symptoms. The lozenges should be continued throughout.

Digitalis in Delirium Tremens.—Dr. Gascoigne, Asst. Surg. Royal Artillery (*British Med. Journal*), treats delirium tremens with success by tincture of digitalis. He reports eleven cases, in which the smallest quantity required was four drachms, and the largest, twenty-eight drachms, taken in thirty-three hours, the only effect of which was that the man was bathed in warm perspiration, and slept soundly for two days and two nights, with the exception of waking up about every six hours to drink beef-tea. The advantages of the remedy in this disease are, a tonic on the heart, a sedative on the nervous system, a rapid induction of sleep, and cessation of delirium. He gives neither wine, spirits, nor beer, but allows as much beef-tea as the patient can take, and meat, if it is fancied.

Iron in Intermittent Fever.—Dr. G. H. Lenoir (*The Med. Archives*) has treated several cases of intermittent fever successfully with the use of liq. ferri persulphatis, when the administration of quinine had failed. He gave the preparation in doses of eight to fifteen drops, every four to six hours, usually preceded by a dose of pil. cathart. comp.

Encysted Stone in the Bladder, Complicated with Perineal and Femoral Fistula.—Frank A. Stanford, M.D., Columbus, Ga. (*N. Y. Medical Journal*), publishes the following case of partially encysted stone in the bladder, complicated with perineal and femoral fistula. The subject of this interesting case was a male, aged seventeen years. He had had symptoms of stone since his earliest recollection, and besides the painful symptoms which accompany this difficulty, two fistulous openings were discovered, through both of which there was a constant flow of urine: one of these was situated

in the perineum, while one occupied the upper and inner aspect of the thigh. Through both a constant escape of urine took place, and the parts adjacent were kept excoriated in consequence. A bilateral section of the perineum into the bladder was made. The stone was readily come in contact with, when, after several ineffectual efforts at its extraction, it was found to be partially encysted. It was occupying the infundibuliform portion of the bladder.

THE SULPHO-CARBOLATES. — The sulpho-carbolates have been recently introduced into medicine. Mr. John Wood, of King's College Hospital (*Lancet*), recommends an aqueous solution of *sulpho-carbolate of zinc*, of from 3 to 6 grains to the ounce, as an injection in the treatment of gonorrhœa, and also as a dressing for wounds and sores. It has been found of great service in all cases to which the use of carbolic acid is applicable.

The sulpho-carbolates are easily prepared by heating pure carbolic acid with oil of vitriol, diluting the mixture with water, and saturating the solution with a base. By evaporation the sulpho-carbolate of the base may be obtained in crystals.

The *sulpho-carbolate of zinc* is found in brilliant crystals which are quite colorless after they have been well drained on bibulous paper. This salt is freely soluble in water and in alcohol.

Sulpho-carbolic acid is obtained by exactly decomposing sulpho-carbolate of baryta with sulphuric acid, and evaporating the filtrate *in vacuo*. It forms slender needle-shaped crystals. This acid is analogous to sulphovinic acid, having the composition, $(C_6H_5)\,HSO_4$.

The formula for sulpho-carbolate of sodium is $(C_6H_5)\,Na\,SO_4 + Aq$, and that of sulpho-carbolate of zinc—$(C_6H_5)_2Zn''\,(SO_4)_2 + Aq$.

BANTING'S SYSTEM A CAUSE OF BRIGHT'S DISEASE.—Dr. Thomas Clemens, of Frankfort (*Chemical Gazette*), reports three cases of his own, in which the patients had carried Banting-ism to an excess. So insidious was the invasion of the renal disorder, that when the patients first applied for medical aid the symptoms of Bright's disease fully developed were found in each instance. All the cases were fatal, and each was accompanied with a rapid and profound disarrangement of the whole system, associated with symptoms referred to the brain and cord. Dr. C. believes that a tendency to the disease is caused by the loss of the fat of the kidney, together with an excessive supply of albuminous material in the blood.

IODIDE OF LIME IN SCROFULOUS TUBERCULOSIS OF THE LUNGS.—Dr. Mallet (*Bulletin Thérapeutique*) advocates the iodide of lime as the best remedy in scrofulous tuberculosis of the lungs, except in cases complicated by syphilis. He prepares it by precipitating the aqueous solution of iodide of iron by means of milk of lime, filtering, and evaporating to crystallization. Iodide of calcium may be given in small doses (¼ of a grain every 3 to 4 hours), and can be continued for more than a year without ill effect.

MANAGEMENT OF TETANUS.—M. Behier (*Dict. de Méd. et Chir.*) recommends for tetanus subcutaneous injections of the valerianate of atropia along the nape of the neck, and gives the following formula:

℞. Atropiæ valerianatis, gr. v.
Aquæ, ʒ j.

M. Of this, five drops to be injected every two hours.

Pescheux (Verneuil) reports a case of tetanus relieved by subcutaneous injections of atropini sol. 1–100. Three-fourths of the syringe of Pravaz (three grammes) were injected, in doses of ten drops at a time. Symptoms of slight atropic poisoning occurred, and the tetanus disappeared.

GALVANISM AN ANTIDOTE IN POISONING BY GELSEMINUM SEMPERVIRENS.—J. T. Main, M.D., Unity, Me. (*Boston Med. and Surg. Journal*), applies the poles of the galvanic battery to patients who have been poisoned by gelseminum sempervirens (yellow jessamine). He has always been successful in restoring his patients by means of the battery.

LUPUS ERYTHEMATOSUS.—Kohn (*Archiv für Dermatology und Syphilis*) states that the mercurial plaster, accidentally discovered by him, applied in cases of lupus erythematosus, exerts a beneficial effect, cases which had resisted treatment for years yielding to its use in from six to twelve weeks.

ECZEMA MARGINATUM A PARASITIC AFFECTION.—Köbner and Pick (*Archiv für Dermatology und Syphilis*) announce that eczema marginatum is really a parasitic affection of the skin, caused by the presence of tricophyton tonsurans; or, in other words, that it is only a variety of herpes tonsurans, the appearances of which depend chiefly upon its seat, and are those of "a herpes tonsurans vesiculosus, combined with those of an eczema intertrigo."

BLENNORRHAGIC RHEUMATISM.—Fournier (*Annales*), in a contribution to the study of "Blennorrhagic Rheumatism," maintains that the urethral lesion is an efficient and essential cause of the affection; that it is the blennorrhagia which causes blennorrhagic rheumatism.

DISCHARGE OF BLOOD AND SERUM FROM THE EAR AS A SIGN OF FRACTURE OF THE BASE OF THE CRANIUM.—During the discussion which followed the relation of a case of "Fracture of the Base of the Cranium," at the Société Impériale de Chirurgie, M. Trélat (*Boston Med. and Surg. Journal*) referred to the cases reported by MM. Ferry, Prescott Hewitt, and Morvan, in which bloody serum flowed from the ear without there being fracture of the base of the cranium. The lesion was either of the inferior wall of the auditory canal, or of the tympanum, or in the bones of the internal ear, the cavity of the cranium not being opened into. To authorize the inference that a flow of serosity from the ear has its source in the cavity of the cranium, it is requisite, according to M. Trélat, that, first, this flow be not sudden, but that it follow, after a few days' interval, a discharge of blood; second, that it be of some considerable duration; third, that the fluid have the chemical characters and the peculiar reaction of the cephalorachidian liquid. Under these conditions a flow of serosity from the ear, said M. Trélat, is a veritable pathognomonic characteristic of fracture of the base of the cranium, while a simple flow of blood, not followed by a discharge of serosity, is not a pathognomonic sign.

A BENEFICIAL VAGINAL PESSARY.—In the treatment of ulcerations of the os uteri, and distressing vaginitis, much benefit may be derived from the daily application of a pessary, prepared according to the following form:

℞ Acid. carbolici (cryst.) gr. v.; ext. belladon., gr. j.; glycerini, ceræ albæ, āā ʒ j.; adeps, q. s.

Ft. Pessar.

ATOMIZED MEDICATION FOR ASTHMA.—M. F. Basset, M.D., of Quincy, Ill., has gained the best results in the treatment of asthma by a combination of antispasmodics and expectorants, as follows:

℞ Ext. hyoscyami f.,
" lobeliæ, f., āā f. ʒ i.
Aquæ dest., f. ℥ i.

M.

This is introduced by means of the atomizer and the

inhalation of medicated spray; it can be directly applied to all parts of the air-passages or respiratory organs.

CURE OF OBESITY.—The bromide of ammonium is recommended by Dr. Gibb, of London, to those who suffer from an excess of fat. When taken in small doses for a length of time, it will absorb fat, and diminish the weight of the body with greater certainty than any other known remedy.

THE ETHER SPRAY IN POPLITEAL ANEURISM.—Dr. Henry Harrison, of London, is inclined to the opinion that ether spray, in a recent case of popliteal aneurism, had much to do with the rapid solidification of the rather large tumor.

PEROXIDE OF HYDROGEN IN DIABETES.—Dr. Day, of Australia, has obtained considerable success in treating diabetes by the ethereal solution of peroxide of hydrogen, given two or three times a day, in doses of from half a drachm to two drachms in a wine-glass of water.

PHLEGMASIA DOLENS FOLLOWING AN ABORTION OF THREE MONTHS.—A. F. Barnes, M.D. (*The Med. Archives*), mentions a case of abortion of three months, which occurred in a stout, robust woman, aged about 30 years. She was delivered of a three months' fœtus, but without the decidua, and, singularly, during the whole of this severe abortion, she did not lose a single drop of blood. Her aunt stated that on the second day she passed the after-birth. Its expulsion was attended with an ordinary loss of blood, and was followed by the usual lochial discharge. Thirteen days afterwards Drs. Whitehill and Barnes were summoned, on account of alarming hæmorrhage, which followed straining at stool, after taking four comp. cath. pills, and was arrested by the solution of persulphate of iron, applied by a pledget of lint. Phlegmasia dolens followed her troubles, about three weeks after the cessation of the hæmorrhage.

The case presents several interesting points. It is the first case of abortion at three months he has ever met with, in which there was an entire absence of hæmorrhage.

He never before witnessed such frightful and recurrent hæmorrhage, after the establishment of comparative convalescence, without some more exciting or provoking cause than an ordinary cathartic.

The hæmorrhage was attributed to the very relaxed condition of the uterus, during the engorgement of the parts incident to the severe straining induced by the action of the cathartic. He has never before known phlegmasia dolens to follow an abortion at three months. Ramsbotham says of it: "It is said to have followed an abortion; though I have myself never seen a well marked instance of such an occurrence." Dewees, in his great experience, met with but two cases of it.

OINTMENT FOR SORE NIPPLES.—The following formula for an external application for sore nipples is reported in the *Repertoire de Pharmacie:* Ol. theobromæ, 10 gmme.; ol. amygd. dulc., 2 gmme.; ext. krameriæ, 1 gmme. Ft. ung.

Three or four applications a day of the pomade, which is perfectly harmless to the sucking infant, are sufficient for a cure.

DICHROTIC INK.—Messrs. Bewley and Draper, of Dublin, have introduced a new ink. It consists of a strong solution of logwood; it has no sediment, and being free from acid, does not corrode the pen; it sinks rapidly into the paper, and soon becomes black.—*Drug. Cir. & Chem. Gazette.*

RETENTION OF URINE FOR THIRTY-TWO DAYS.—Dr. Curtis, of Missouri (*Chicago Med. Examiner*), relates a case of retention of urine by a female, who did not pass a drop for *thirty-two days!!* Her abdomen was greatly distended, and she suffered much pain. One and a half drachms of the fluid extract of hydrangeæ, were ordered every three hours, and in each interval twenty grains of calomel. When five doses of the former and four of the latter had been taken, she voided three and a half quarts of colorless urine, and in six hours afterwards four quarts more—the bowels in the meantime having been freely purged.

THE MANAGEMENT OF ERYTHEMA NODOSUM.—Dr. H. S. Purdon, Physician to the Belfast Dispensary for diseases of the skin (*London Medical Mirror*), believes that the cutaneous affection known as erythema nodosum, which is usually confined to the anterior part of the leg, is best treated by the administration of tonics, such as quinine, salicine, &c. Iron is indicated if the patient be chlorotic. The following is a good form, especially if the bowels be at all costive:

℞ Decoct. Aloes Co.,
Mist. Ferri Co., ana, ℥ iij.
Boracis, ʒ iss.
Tinct. Hyoscyami, ℥ ss.
Sig: A tablespoonful thrice daily.

No local treatment, with the exception of warm fomentations of poppy capsules and rest, seems to be of any use.

CHROMIC ACID IN LUPUS.—H. S. Purdon, M.D. (*Jour. Cutaneuos Medicines*), prefers chromic acid to the exclusion of any other remedy, in cases of lupus. He recommends a solution—two drachms to the ounce, as it is more easily managed than in substance. He considers constitutional remedies, with the exception of cod-liver oil, and that more as a dietetic agent, useless. Consequently, it is to local applications we must look for curing the complaint.

A CEMENT FOR TEETH.—The French and German dentists prize highly the following formula as a cement for teeth: Finely powdered borax, 1 part; freshly calcined oxide of zinc, 9 parts; finely powdered silex, 2 parts; mix well together, and make a firm plastic mass.

AN EXCELLENT REMEDY FOR PERIODONTITIS.—Prof. Abbott (*The Medical Bulletin*) states that the best remedy, and the one that works the most conveniently for periodontitis, that he has used, is a mixture of equal parts of officinal tincture of iodine and tincture of aconite-root, applied to the gum around the roots of the tooth with a camel's-hair brush, or a portion of cotton-wool at the end of a stick. It is to be applied in the early stages of the inflammation, once in 24 hours, and in very severe cases twice.

CAUSE OF PAIN IN ANAL FISSURE.—Prof. Krause explains the cause of the pain in anal fissure, by the anatomical distribution of the nerves in that region. He has found that a great number of nervous filaments with terminal corpuscles are distributed to the long papillæ of the columns of Morgagni.

CAUSTIC APPLICATIONS TO THE UTERUS.—Dr. Tilt prefers the nitrate of silver, either in solution or solid stick, and caustic potassa, for applications to the womb. In the treatment of chronic uterine catarrh and abrasions or ulcerations of the cervix, the solution of nitrate of silver is preferable. The use of the solid stick of nitrate of silver he strongly advises in cervical metritis, and in such cases he leaves about the eighth of an inch of caustic in the cervical canal.

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New York, June 15, 1869.

AMERICAN *vs.* EUROPEAN MEDICAL SCIENCE AGAIN.

WE publish in another column a very interesting and suggestive letter from Prof. S. D. Gross, of Philadelphia, in reply to our recently published analysis of the relation of American to European medical science.

The appearance of this letter affords us an opportunity to call renewed attention to this most important theme, which we gladly improve.

We may say at the outset, that these strictures upon our editorial come from a source, above nearly all others in America, worthy of consideration.

It is eminently fitting that the defense of the profession of America—if defense it need—should be undertaken by one who is one of its oldest and one of its brightest ornaments. If the medical science of our country has been misjudged, it were well that the evil judgment should be righted by one before whom, in his chosen department, we all have bowed, and not unworthily, for the past thirty years. If the thought and scholarship of our profession have been underrated, it were well that its claims in this regard should be advocated by one who stands acknowledged as one of its ablest thinkers and ripest scholars. If American science has suffered by odious comparison with that of Europe, it were also well that its defense should be entrusted to one who has done so much and so nobly to vindicate the honor of our science, both at home and abroad.

But we contend that we have *not* misjudged the profession of America; that we have not underrated its scholarship; that we have given it full and hearty credit for all its achievements, and that in our comparison of the science of Europe and America, we have accorded to the latter all that is justly its due.

We are happy to know that, in many of the essential features of our editorial, Prof. Gross and ourselves entirely agree, and that we can endorse many of his statements in stronger language than he has seen fit to use, and can sustain them by a larger array of facts than he has taken the pains to present.

We agree that the profession in America has been inclined to discourage rather than encourage original thought among its members. In the plain language of Prof. Gross, we are "toadies." In science, we ask what says the *Lancet*, just as in politics, we ask what says the *London Times*. The leading and most successful men in the profession of America to-day, certainly in all our large cities, are not our most original thinkers, but our *heaviest importers from Europe.*

Again we repeat that, until quite recently, no physician in this country could advance a radically original thought in science without risking, not only his reputation, but even his comfort. Even now that spirit still lingers. Even now the reformers of American Medical Science are met by the stunning question—*What does Europe say?* Even now, many of our leading writers dare not form or express a favorable opinion of an *original* American work, until the key-note of criticism has come to us from beyond the sea.

Such gross timidity and prejudice, on the part of our profession would make us tremble for the cause of science, were it not for the fact that we see on every hand sure evidences of a growing liberality.

In the severe strictures of the editorial to which Prof. Gross here replies, we made no invidious distinctions between different cities, or between the city and the country. If we had published the names of the persons to whom we referred, it would have been seen that, not only Philadelphia, but the city and State of New York, and other portions of the country, were held guilty. No longer ago than 1860, there was published a pamphlet filled with maledictions of the American reviver of *external version*, and signed by a large number of the most prominent obstetricians of the country, some of whom have passed away, but most of whom are yet living, which, if it had been exhumed from the ruins of the Inquisition, would have made our blood run cold with horror.

When Prof. Thomas read some portion of it to his class, in the College of Physicians and Surgeons, it sounded like the voice of the middle ages. Whoever desires to know why America has given so few original thinkers to medical science, let him read that pamphlet. Let him compare it with the persecutions of Galileo, and the ravings of the monks of Salamanca against the future discoverer of America.

It may be said that a courageous physician, a real hero, will speak the truth at all hazards, and at whatever cost. This is very true, but moral heroes are rare. Many men who have taste and genius for original investigation in science, have not united with that taste the heart of a lion or the face of steel, that is necessary to conquer despising and opposition. God gives to the world many who can originate ideas, but very few who will dare all for an idea. To our personal knowledge, many of the good men and true, of whom Prof. Gross speaks, are so overburdened with this great millstone of scientific prejudice that they kneel in the furrow, fall by the wayside, and in all the ambition for professional glory are crushed for ever.

2. *We agree that the standard of professional scholarship must be raised.*

On this subject we propose to cry aloud and spare not, until we see evidences of a radical change. The need for this reform is far greater than even Professor Gross desires to allow. On this reform in our medical education, we base our only hope for the future of science in America. The number of physicians among us who are ignorant, not only of ancient and foreign languages, but also of their own, who are ignorant of the great, broad *principles* of medical science, who are uncultured and mentally indolent, is simply appalling. If, as Professor Gross says, the number of faithful, intelligent workers in the profession is legion, the number of stupid, ignorant drones is *many* legions.

It would be an interesting point of statistics to ascertain how many practising physicians there are in this country who take no medical journals and buy no medical books. The man who, in this age, practises medicine, anywhere within the pale of civilization, without buying books or reading some medical journal, is not only a disgrace to our profession and to the nineteenth century, but to human nature itself.

3. *We agree that, in mechanical dexterity, inventive genius, and practical tact, the Americans are, on the whole, superior to the Europeans.*

We think that Professor Gross even underrates America in this respect. We hold that surgical diseases of all kinds are as well, or better, treated in America than in Europe, and that, in a number of surgical conditions, such as deformities of various kinds, we are successful when the Europeans utterly fail.

4. *We agree that certain kinds of learning do not necessarily make one a good practitioner of medicine.*

It is possible to have "learned fools" in medicine as in other departments. The physician needs all possible learning, but it must be of the *right kind.* Greek and Latin and mathematics are only a part, and by no means the principal part of learning. It has been the fashion to call a man learned who only knows what is *useless,* and to call one ignorant who only knows what is *practical.* All this is wrong. We use the word learned in a more liberal and catholic sense. We claim that any physician deserves the title of *learned* who is thoroughly familiar with all that is known of the nature and the treatment of disease. Even learning in this comparatively narrow field is not stumbled upon. It comes not by observation. It can only come by patient labor, superadded to ability and opportunity. We say again that no man can be a physician worthy of our times without being in this sense learned.

On other points, Professor Gross and ourselves just as decidedly differ. We beg leave to oppose the following statements that are offered in the accompanying letter, and which contain the gist of his criticisms on our editorial.

1. *That "in refinement, in general culture, in force of intellect," physicians have not their superiors in either of the other professions.*

This statement is so absolutely erroneous, and can be so overwhelmingly opposed both by special facts and by general observation, that we hardly know where or how to begin to reply to it. If Professor Gross had stated that physicians were the wealthiest class in society, he could not have been further from the truth. We are surprised beyond expression, that Professor Gross, with his large experience and information, is unconscious of the great fact that, in our country especially, the best brains are *to be found among the clergy.* The American pulpit is, beyond all comparison, the most eloquent pulpit of the world. This nation was founded on religious faith. Even now it has not forgotten its origin, and still gives its first fruits to the church. But this fact of the superiority of the clergy is not peculiar to America. In England, also, much of the best talent and education are monopolized by the clergy. The historian Froude, in his magnificent inaugural address, recently delivered, complains almost bitterly that Oxford University is too exclusively a preparatory school for clergymen. This fact is not peculiar to our age. Buckle tells us, in his great work on the History of Civilization, that for centuries the clergy appropriated the best intellect and the best culture of Europe. Whether right or wrong, the world holds with Thomas Carlyle, that man's religion is the principal fact with regard to him, and therefore they bring to its altars the firstlings of their flocks. There are, of course, ignorant and stupid men among the clergy. We have sometimes thought that they represent the two extremes of society—the best intellect and the poorest.

The phrase, "ministers, lawyers, and doctors," has become proverbial. It represents the *relative* standing of these professions in American society.

This relative superiority of the ministers of religion is not peculiar to Christianity. In those wonderfully rich and suggestive volumes, "Chips from a German Workshop," Max Müller informs us that through many of the realms and ages of heathendom, the officials at the sacred rites have been chosen from the best blood of mankind.

The best way to learn the relative status of the profession, is to visit professional schools where our young men prepare for their active duties.

We must all admit that our medical schools, as a rule, contain the *leavings of all the other professions.* They are it is true, always partially redeemed by some noble exceptions. Enter any medical college you choose, and you will find on the average *less* culture, knowledge, and genius, than among any other body of young men that are gathered together for any educational purpose whatever. This is a plain fact, often spoken in private; and it is our right and our duty, in our efforts for reform, to look it squarely in the face, and boldly express it in public.

The same may be true of Europe, but just at the present moment we are not speaking by comparison.

The coarseness and ignorance of our American medical students are so painfully noticeable, that many who are endowed with strong intellect and fine feelings are actually driven into other professions even after they have entered upon medical study. Several of the best endowed and best cultured men we ever knew, were to our personal knowledge, and quite recently, *driven* into the ministry, after once beginning their medical studies, by the low aims of their associates in the lecture-room.

A few years ago, we compared the catalogues of some of our medical schools and theological seminaries, and found that of medical students only *one in four were graduates of colleges*, while of *theological students the reverse was true, and over three-fourths were graduates of colleges.*

2. *That the officers and professors of our colleges have a high respect for the medical profession.* This statement we are compelled emphatically to deny. On this subject we speak by authority. We speak from a large and intimate acquaintance with college faculties and students when we say that of the four callings in which college graduates engage—*theology, law, teaching, medicine*—medicine is the one which is least honored and most despised. Probably no responsible member of any of our college faculties would be willing to say in just so many words that he despised the profession of medicine; and yet go to Yale or to Harvard, to Amherst or to Williams, and it will be found that fewer of the able, high-toned, scholarly leaders in thought among the graduates enter medicine than any of the other professions. We speak calmly on this subject, weighing well every word that we utter, but with a deep and abiding conviction that this important fact should be known and felt throughout the land.

The number of men in our country to-day who, after taking the highest scholastic or literary honors of any of our leading colleges, have entered the profession of medicine, could be counted on one's fingers. On the other hand, *hundreds of our clergymen, lawyers*, and teachers, graduate with the highest of college honors in writing and in scholarship.

There is nothing mysterious in this fact. The explanation is as clear as the noonday. Most of our colleges were originally founded as schools for clergymen —nearly all their officers and professors are clergymen. A large part of their endowments were given with the expressed desire that they should aid in the education of clergymen. Very many of our young men enter college under this specific covenant, that they will enter no profession but the ministry.

The clergy are literary, are honored and influential, and therefore those who love literature, honor, and influence naturally gravitate toward that profession.

The reason why so many graduates enter the law is equally clear. In this country, every man has a chance for political preferment. The law is the avenue that leads to politics. Therefore, young men who are ambitious of political honor, almost uniformly study law.

Of late years, *money* has become a power in our colleges, and some of the best cultured graduates go into business.

As long ago as the last century Edmund Burke declared in the British Parliament, in no other country was law studied so much as in America.

The fact is, that our college students during their four years' course live and move in an atmosphere of theology, law, or of business, and rarely think or hear of the profession of medicine.

It is the impression even among educated men that physicians do not need a liberal education, are indeed better off without it. One of the firmest friends of liberal education that we ever knew once told a young man who was preparing for college that "his four years in the University would be wasted if he intended to study medicine." One of the most promising of our New York surgeons, who died a few years ago, declared that all his life he had repented that he had been dissuaded from taking a collegiate course by a college graduate himself, who told him that a *physician did not need a liberal education.*

Every year, our leading colleges send forth each about one hundred graduates. How are these distributed through the professions? In precisely the same way that a farmer sorts and divides his potatoes. First, the fairest and comeliest—with exceptions always—are picked out and given to the ministry. Then the lot is again assorted, and the best are assigned to the law. Business and teaching take the few sound and fair specimens that are left. Last of all, the college basket, with all its leavings, its blights, its abortions and half growths, is emptied into the lap of medicine. It is very well understood among college boys that after a man has failed in scholarship, failed in writing, failed in speaking, failed in every purpose for which he entered college; after he has dropped down from class to class; after he has been kicked out of college, there is *one* unfailing city of refuge—the profession of medicine.

On this subject we speak not from hearsay, nor from general and indefinite impression, but from long and special investigation, and with abundant opportunities for gaining information. We repeat again, with stronger emphasis than before, that in our American colleges medicine is the most despised of the professions. On this subject we challenge contradiction, and we promise shortly to publish in these columns statistical evidence and testimony that shall put the question beyond the realm of discussion.

We may say here that college catalogues show that only a small minority of the graduates—even of a low standing—study medicine at all. Our profession is recruited quite largely from those who, from various causes—ill-health, poor scholarship, bad conduct, and general discouragement—fall by the wayside, and after one or two years of study, leave college without a diploma. The rule is to shake the academical tree from

time to time during the season, and let the worm-eaten blights fall into medicine by the action of gravitation, while the sound, ripe fruit is reserved to be plucked in the autumn and carried to the altars of law and theology.

3. *That a good surgeon must necessarily be a good physician.*

This question must be argued, not by special cases, but on broad general principles. We hold that a man may be a skilful, judicious, comprehensive surgeon, and yet be no physician at all. The converse of the proposition, that a man may be a skilful physician without being in any sense a surgeon, has always been admitted, and is practically demonstrated every day, in town and in country. The truth is, that surgery requires not only a different but an *opposite* cast of mind from medicine, and between the two a gulf as wide as the Atlantic intervenes. In making this statement we reprove neither physicians nor surgeons.

A good surgeon is no more to be censured for not being also a good physician than a warrior is to be censured for not being also a statesman; a clergyman for not being also a lawyer, or a poet for not being a correct mathematician. Some great warriors, like Napoleon and Cromwell, have also been great statesmen; some few have succeeded well at the bar and in the pulpit; there have been poets who had some idea of numbers, and occasionally we find one who is both a first-rate surgeon and a first-rate physician. But all such instances of combination of opposite talents are very exceptional; they are not to be expected, and, least of all, is any one to be blamed for not being thus remarkably endowed. We go so far as to say that, as a rule, in proportion as a man is a good surgeon, in just the proportion is he a poor physician. Surgery requires, besides mechanical skill and the judgment which comes from experience in regard to operating, a *mathematical* cast of mind. But any one who attempts to bring mathematical tastes and mathematical ideas into medical practice will just as surely fail as if he should attempt to write poetry by the rule of three. Poetical imagination is fatal to the surgeon: to the physician it is not only useful, but for the highest success indispensable.

We think that if Prof. Gross will carefully revise his declarations he will certainly allow that a man may be a skilful and judicious operating surgeon without being either a physician or a scholar. All observing and unprejudiced minds must, we think, endorse the sentiment recently offered in one of his clinical lectures by a well-known medical teacher of this city: "*With what a wonderfully small amount of brains God has endowed some distinguished surgeons.*"

We regret—we cannot tell how deeply—that Prof. Gross has in this letter given aid and comfort to the despisers of our profession—already too numerous in America—by even implying that the chief duty of the practitioner of medicine is to be a *nurse*. The idea that prevails through the leading classes of American society is that medicine is a "*useful*" profession—that we *need* doctors to prescribe pills and prepare powders, to deliver babies and pat children on the head—what any old granny can often do even better than they—and to collect their bills for these services some time the next year. If this idea is not wrong, nothing is wrong. This low ideal of our profession is absolutely monstrous, and in the name of science and human nature we enter our protest against it. The ideal for which our profession should aim is not only to give pills to patients, but to give law to progress and to reform; not only to feel the pulse of the sick, but to feel the pulse of society; to originate thought, to investigate, to experiment, to perfect and popularize science; and we hope that those who propose the study of medicine with any lower ideal than this will at once separate from us by an interval so long that in comparison the East and West will be cohesion.

Again we say that a physician should and must be a scholar. By scholarship we *mean familiarity with the thoughts and acts of the world.* Physicians are successful usually in proportion to the *right kind* of scholarship which they have acquired. A man who is a good linguist or mathematician, and yet is ignorant of medical knowledge, is not a medical scholar, and cannot, of course, be a successful practitioner.

4. *That "human nature, civilized, refined, and cultivated, is pretty much the same in all enlightened countries, and that professional superiority frequently exists more in the imagination than in the reality."*

If this statement—which Prof. Gross certainly could not have weighed with care—were true at all, it would apply to all arts, professions, and occupations—painting, sculpture, poetry, &c. Would Prof. Gross say that the artists of America are equal to those of Italy, that the theological and philological scholars of America are equal to those of Germany, or that the pulpit orators of Europe are equal to those of America? Comparing the different nations of Europe, would he claim that the sculpture of England was equal to that of Italy, or that the poetry of France is to be compared with that of England? All of these are enlightened nations, but how widely, very widely do they differ in their attainments in the various departments!

The late Theodore Parker, in one of his suggestive lectures that won respect even from those who hated his theology, divided ability into two kinds—the *organizing* and the *executive*—and stated that the organizing ability was superior to and of a higher order than the executive. Just here is the superiority of European physicians over those of America most readily apparent. We are superior to them in *executive* talent, in tact, in the mere *practice* of medicine, and perhaps also, in the average, obtain, as Prof. Gross claims, about as good results. This is, however, a matter of opinion, and cannot be well determined by statistics.

But in *organizing* ability—in thought, in elaborating, systematizing power, and in power and originality of medical leadership, Europe is far ahead of America.

There are probably hundreds of physicians who can treat some conditions of nervous disease as well as Brown-Séquard, whose executive, practical, therapeutical ability in any case may be greater than his, and yet Brown-Séquard outweighs them all, because but for his experiments, researches, and patient thought—in short, but for his organizing ability—they would not have known the principles by which the diseases to which he has devoted his life can be diagnosticated and treated. For the same reason Simpson, Bennett, Helmholtz, Türck, and Czermak outweigh most of their disciples in their respective departments, even though some of these, in practical tact and executive ability, are superior to their leaders. "All honor," says Renan, "to the *founders*." This honor is instinctively given in all departments of thought. Although thousands upon thousands are now visiting America from Europe, yet Columbus is never forgotten.

We present below a comparative statement of the books and treatises on medical science that have been offered during the past ten years, in Europe and America. As books, on the whole, with all their repletions and common-places, contain the original thought of the world, represent the organizing power of science, the comparison is a fair one. Making allowance for the difference in population between Europe and the United States, the disproportion in medical literature is *enormous*. These estimates are based on the experience and opinions of some of our leading publishers, importers, and authorities in the respective departments.

	Books, pamphlets, &c., published in Europe during the past ten years — approximate calculation.	Books, pamphlets, &c., published in America during the past ten years — approximate calculation.
Obstetrics and Gynæcology.....	five hundred.	twenty-five.
Ophthalmology and Otology.....	fifteen hundred.	twenty-five.
Electro-therapeutics	forty.	two.
All Departments of Medical Science..	four thousand	five hundred.

In this calculation translations or reprints are not included. If we simply compare England and the United States, nearly equal in population, the superiority of the former is wonderfully apparent. Between the medical literature of the United States and Germany there can be no comparison, only *contrast*.

4. *That the sentiment expressed in our last editorial will injure us in the eyes of Europe.*

We regret that Professor Gross lends countenance to our national failing of conceit. Individuals, like nations, cannot create but must *earn* their reputations. In private intercourse unwarranted conceit always makes enemies and despisers; while genuine achievements, united with a dignified and independent self-confidence, always, in the long run, command respect, and by a law as sure as gravitation. Europe has despised America, not so much because of her youth and ignorance as because of her disagreeable over-estimate of her achievements.

We would say to our brethren in Europe: We admit, gladly and without humiliation, that you with your concentrated population, aided by government, fostered by wealth, and trained in schools which centuries have perfected, have accomplished more in organizing medical science in ten centuries than we of the same blood as yourselves, with our scattered population, opposed and hampered by stupid legislation, cramped by poverty and imperfectly educated, have accomplished in two centuries. We are not jealous of your superiority in this respect; rather, we rejoice with you and are proud of your success. But mindful of the saying of the great Confucius, "What you know, to know that you know it, and what you do not know, to allow that you do not know it—that is knowledge," we claim that in a mechanical genius, and a practical activity of mind, and all that makes executive ability, we have by transplanting to this new land become superior to our ancestors in the old world.

But these achievements shall not content us. We aspire to and intend to reach the highest position among the *organizers* of science. Even now, our best and noblest men are pressing on with full force toward the mark of the prize of our high calling. Our determination is, that the fires of scientific persecution that have so long been burning and smouldering in our midst, and from which you yourselves have not been wholly guiltless, shall be extinguished at once and for ever; that among us less honor shall be given to *importers* and greater to *originators;* that specialism shall be feared less and ignorance more; that in our societies and medical bodies less time and discussion shall be given to *ethics* and more to *science;* that, in short, we shall pay less of the tithe of mint, anise, and cummin, and more of the weightier matters of the law.

All this we shall do, not from motives of so-called patriotism, but from a pure and reverent love of science, which, broader than seas and higher than mountains, embraces all nations of the earth in one united brotherhood of knowledge.

If we had always addressed Europe with such sentiments, our scientific reputation abroad would have been far higher than it is now. It is a fact well recognized in literary circles, that our leaders in thought, our Prescotts, our Motleys, our Bancrofts, our Longfellows, our Bushnells, are better appreciated in Europe than in America. To a certain extent, this is true of our few leaders in medicine.

In concluding these remarks, we desire again to thank Professor Gross for his excellent letter, which, with all its errors, we commend as a model of courtesy. If all our medical men were like him in ability, in culture, and in character; if, even in each of all our large capitals, ten men could be found equally good and true, then those severe words of ours would never have been written. If all, or even a majority, of controversial letters had been as kindly as this, much of the acerbity of controversy in the past would never have been known.

Right heartily we endorse this eloquent sentiment: "The time has come when, as a great profession, we should do justice to ourselves, by encouraging one another in everything that is good and useful, cultivating good feeling, improving our system of medical education, rousing our schools to a stern sense of their duty, and fostering and improving our medical literature."

Severely as we have written, we yield to no one in our faith in the coming of the golden age of medical science in America. But we do not regret such discussions as these. Rather do we believe that after the thunderings and the lightnings, and the confusions of the waters, the land will be revealed, and the evening and the morning will crown the third day, and a new era for science in America.

Even amid the depths of the darkness that surrounds us, and from over the walls and mountains that have hemmed us in, we catch from afar the gleams of the future, and we know that those are yet among us who shall behold the time when the bright morning shall breathe upon us, and the grey-light shall redden into the lustre of day.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, MAY 26, 1869.

DR. LEWIS A. SAYRE, President, in the Chair.

RECOVERY FROM COMPOUND FRACTURE OF SKULL — COLD-WATER DRESSINGS.

DR. NEWMAN presented two spicula of bone that were exfoliated from the seat of a compound complicated fracture of the skull near the left parietal bos. The patient was a lad who had been struck by a bar of iron which had fallen a very considerable distance from the hands of a workman engaged in putting up a fire-escape. All the symptoms of compression were present in a marked degree, but no attempt at operative interference was made, and cold-water dressings were alone used, varied, as occasion required, with the addition of carbolic acid. Near the end of the second month after the injury the bones exfoliated, a firm cicatrix was formed, and the cure was complete. The patient himself was exhibited in connection with the specimens as a triumph of conservative surgery.

NECROSIS OF BOTH PHALANGES OF GREAT TOE.

He also exhibited the two phalanges of the great toe which were removed for what appeared, by the history, to be idiopathic necrosis. The patient was twenty years of age. At the time of the operation the necrotic tissue was so completely separated from the periosteum that after the necessary incision was made, both bones were simply picked out with the forceps.

The Committee on Microscopy reported the case of tumor of arm by Dr. Sayre as one of typical myxo-sarcoma, and the small tumor of liver by Dr. Finnell as made up merely of calcareous concretions.

DR. POST exhibited several large phlebolites removed from the hæmorrhoidal veins of a patient, aged 70, who died of cancer of rectum and liver. One of these equalled in size an ordinary kidney bean.

ABSCESS OF CEREBELLUM.

DR. FINNELL presented on behalf of Dr. Cushman a cerebellum removed from a man thirty years of age, who while working in the hold of a ship was struck on the head by a descending coal-hod. He became insensible for a time, but was soon after able to resume his work, which he continued uninterruptedly for a period of eight days. At the end of that time he was seized with symptoms of cerebral inflammation. The supervening coma was followed by death on the fourteenth day.

At the autopsy the right hemisphere of the cerebellum was the seat of an abscess which contained about two teaspoonfuls of pus. The neighboring tissue was much softened.

NUTMEG LIVER—CARDIAC, PULMONARY, AND PLEURAL DISEASE.

A second specimen by the same gentleman was a portion of nutmeg liver removed from a man aged seventy. It showed a deep furrow on its anterior and inferior border, caused by the neighboring ribs, which from some cause unknown had become bent inwards. The deceased had been ailing for several days, and while applying for relief in the office of the Commissioners of Emigration, dropped upon the floor and almost immediately expired. The heart weighed twenty-one ounces; there was also tubercular disease of both lungs, and pleurisy with effusion. The right side of the chest contained about a quart of sero-purulent fluid.

PISTOL-SHOT WOUND OF HEART.

The third specimen was on behalf of Dr. Cushman, and was one of pistol-shot wound of the heart inflicted during a quarrel. Four balls were discharged in all, three of which lodged in the substance of the sternum; a fourth, entering the middle of the right ventricle, emerged at the base of the left ventricle and lodged in the pericardium. This sac was filled with blood Death occurred in five minutes after the last shot was fired.

RUPTURE OF UTERUS—TOO MUCH RELIANCE ON NATURE.

A fourth specimen, also by Dr. Finnell, and on behalf of Dr. T. B. Stirling, was an extensively ruptured uterus. The patient had been attended by an eclectic, who simply watched by her at intervals for three days, during the whole of which time she was in active labor. He had seemingly been content to leave the case entirely to nature, feeding the sufferer with occasional doses of some anodyne preparation. At the end of that time Dr. Stirling was called in, and finding the head firmly packed in the superior strait, at once recognized the indication for interference. He applied the forceps, but the head slipped from his grasp, and after persistent efforts for half an hour he failed to deliver her. Dr. Finnell then arrived, when it was evident that the head had receded and that a rupture had taken place. A hurried consultation was held, and the result was the rapid delivery of the child by the feet. The patient survived only three hours.

The autopsy made the succeeding day discovered the existence of a very large transverse rupture of the uterus, situated behind and above the bladder. The rent occupied the entire anterior surface, and was evidently occasioned by the prolonged pressure of the fœtal head in that situation against the pubic bone.

MYXOMA OF CHEEK.

DR. SANDS exhibited a small tumor removed six weeks before from the cheek of a man forty years of age. The patient, who was perfectly healthy, first discovered by accident that he had a small tumor in the sub-

stance of the right cheek, just below the zygoma, and close to the duct of the parotid gland. Becoming somewhat uneasy in mind concerning it, he lately consulted Dr. S. When that gentleman saw it a few weeks ago it was about the size of a walnut, was covered by healthy integument, and was pretty freely movable. It was first suspected to be dilatation of the parotid duct itself, but on examination with the probe this suspicion was not borne out. The operation was a surprisingly easy one, the tumor being enucleated after the first incision. The wound was closed with silver sutures, and with the exception of the formation of a small abscess in its locality, nothing untoward occurred.

The specimen was chiefly interesting on account of its microscopical characters, it being a very well marked example of the myxoma of Virchow. The characteristic anastomosis of the cells was very satisfactorily seen. It was evident that the pellet of fat over the buccinator muscle had become transformed into this myxomatous tissue, and was the origin of the tumor.

BONY UNION OF FRACTURE OF CERVIX FEMORIS.

Another specimen by Dr. Sands was of much greater interest, illustrating as it did the fact of a bony union in a fracture occurring in the cervix femoris. While visiting the Bloomingdale Asylum a year ago, his attention was drawn by Dr. Brown to a lady patient aged sixty-three, long an inmate of the institution, who was more or less lame. Having been previously free from lameness, she, on one occasion about a year before, fell from a chair, striking upon the trochanter of the right side. She was placed in bed, and considered by the gentleman who saw her (Dr. Brown's assistant) as probably suffering only from contusion. As the lameness had continued from that time, Dr. Sands was asked to look at the case. After an examination he became satisfied that there had been a fracture at the neck of the thigh bone, as the result of the fall. He was led to this opinion by the presence of eversion of the foot, but more especially by marked shortening of the limb (about an inch or more), and by continued lameness, with absence of all other signs of injury. He expressed surprise that she should recover so well from it. She died lately, and Dr. Brown had been kind enough to procure the specimen and send it to him.

The specimen consisted of the upper portion of the shaft of the femur, including the head, neck, and trochanters. It was very evident that the appearances of the part were abnormal, even before section, and that such were not due to disease but to injury. The head and neck of the bone were shown to have undergone a remarkable change in relative position, the former having dropped down about an inch. On further examination it was also evident that an injury had taken place through the neck of the bone. On the anterior aspect of the neck, about midway between the edge of the articular cartilage and the anterior intertrochanteric line, a prominent ridge of bone was seen, which, on examining the section, indicated the line of fracture as it took place in that situation. Behind the cervix appeared absent, the posterior intertrochanteric line being almost in contact with the femur, just where it joins the neck. The two portions of the neck were united at a very obtuse angle, and in such a way as to explain the eversion of the limb below.

The line of fracture was certainly within the ligament in front, and he was of the opinion that it was within the same behind. The line of fracture was peculiar. Beginning behind, a line ran inwards and forwards to about the middle of the neck of the bone. It then ran backwards and upwards to the anterior surface of the neek, making two lines which formed an acute angle with each other.

That portion connected with the trochanter presented a sharp ridge, which caused the fracture to be impacted.

On close inspection it was found that bony union was not complete throughout the whole extent of the line of fracture, there being an evident solution of continuity along the posterior line of fracture, which sloped forwards and inwards from the posterior surface of the cervix. On the other hand there was no interruption whatever along the anterior line of fracture. There the bony union was complete, and it was doubtless due to this fact that the patient had such good use of the limb subsequent to the injury.

In conclusion, he remarked that he always made it a rule never to attempt to get crepitus in a case of suspicious impacted fracture of the cervix. He was satisfied to make a diagnosis on the ground of the existence of lameness of a persistent character, with eversion of the foot and shortening. He believed that if the relation of the parts when impacted was forcibly disturbed by unwise attempts to get the crepitus, all hopes of union must be at an end, while only such cases did unite which were in the first instance impacted, and in the second instance not meddled with.

Dr. Post was very glad to hear the caution of Dr. Sands in regard to disturbing an impacted fracture of the hip. He had seen many cases where all the signs of fracture were present, yet without crepitus, the latter condition appearing spontaneously as the result of interstitial absorption. In this connection he mentioned a case of impacted fracture in a patient of his at the N. Y. Hospital, in which all the signs save crepitus were present. He declined to use any effort to get crepitus, and the patient was doing well. When Dr. Post's service was changed, one of his colleagues taking charge of the case determined to make a clean diagnosis, which he did by forcibly separating the fragments.

Dr. Sayre referred to a case of impacted fracture, supposed to have united by bone, which he had presented to the Society some three years ago. The patient had injured his hip, a diagnosis of impacted fracture at the neck of the femur was made, and he was left alone. His recovery took place, and he was able to walk about for several years. On account of this recovery there was a presumed error in the diagnosis. In the course of events, the man died and the specimen was procured. At first, Dr. Sayre thought it was one of bony union, and it certainly appeared so. Dr. Geo. K. Smith, of Brooklyn, doubted it, however, and advised him to boil the specimen. This he did, with the result of establishing a slight mobility between the fragments. It was shown, however, that the union had been sufficiently firm during life to enable the patient to use it in walking. In Dr. Sands' specimen he did not think that there was any question as to a bony union.

EPITHELIAL CANCER OF NOSE.

Dr. Rogers presented a fine specimen of epithelial cancer, which he removed from the side of the nose of a man who was 60 years of age. It had first made its appearance fifteen years ago, but commenced to grow rapidly only within the past two years. The integument removed from the nose was replaced by some taken from the cheek.

FATTY PLACENTA.

Dr. Bahan presented a fœtus of seven months, with envelopes which showed fatty degeneration of placenta. The patient, a young woman, had miscarried once before at the seventh month.

EXTENSIVE GANGRENE OF LUNG.

Dr. Janeway exhibited a specimen of gangrene of the lung, complicated with large calcareous plates in the pleura, removed from a man aged forty years, who was admitted May 20 in the Charity Hospital, having been sick only six months previously with some cough and soreness of the chest. These were all the symptoms complained of until three weeks before admission, when he began to suffer so much from shortness of breath that he could not lie down at night; then there was an increase in the coughing and a very fœtid odor of the breath. A few days before admission his feet began to swell. When examined in the hospital he was found to be very anæmic, his pulse was one hundred and twenty, respiration thirty-six per minute, and labored. With the exception of the upper part of the right lung, there was considerable resonance over the whole chest. On the left side, there was increased resonance overlapping the heart. At the right apex there was dulness on percussion, with high pitch, and a diminished amount of expansive movement. On auscultation, in the left chest there was prolonged expiration, with sonorous râles at apex and fine râles at the base; and on the right side at the apex sonorous and mucous râles in front. Behind the scapula, was cavernous respiration, whispered and spoken pectoriloquy, together with mucous râles. All these latter could be heard under the axilla of that side. His urine was examined, and contained neither albumen nor casts.

The patient sank rapidly, and died of asthenia four days after admission.

At the autopsy the left lung was partly emphysematous, and the bronchial tubes for the most part occupied with muco-pus. The right lung was firmly adherent to its chest-wall, and in the costal pleura of that side over most of its surface were developed very large calcareous plates averaging the size of the hand. The lung was greatly pigmented and emphysematous. A large gangrenous cavity communicating with a good sized bronchus was found in the substance of the postero-superior portion of the lung, involving the pleura in the neighborhood. Dr. Janeway stated that the specimen presented the largest calcareous plates that he had ever seen in the pleura. The amount of pigment matter deposited was also very considerable, but he had met with a case where the masses were solid and as large as the fist.

WAXY TUMOR OF LIVER.

The second specimen presented by Dr. Janeway was of still more interest, it being probably but the third one on record. It was a tumor of the liver taken from a patient thirty-eight years of age, a laborer, who was admitted into Bellevue Hospital on the first of May. He stated that he had been sick for six months with cough, soreness of the chest on the left side, and frequent attacks of dyspnœa. A few days before admission he became worse, and from that time until his death he was delirious at night. Three days before death his legs became œdematous, and his urine was found albuminous, without casts. He died of æsthenia on the day he was entered.

At the autopsy there was nothing noticed about the brain or its membranes. The heart weighed twenty-four ounces. The aortic valves were thickened and puckered. The organ contained two thrombi, one situated about the centre of the left ventricle and attached partly to its anterior wall and partly to the septum, whitish in appearance, about an inch in diameter, and containing some fluid in its centre; the other was just to the left of the apex.

The lungs showed numerous recent lobular pneumonias and a few pulmonary apoplexies. The liver was adherent to the diaphragm above and the intestines below. The left lobe was as large as the right usually is, and measured eight inches by eight in diameter. The upper surface of the right lobe was lobulated, and its under surface fissured. On the upper surface, just over the base of the gall bladder, was a waxy tumor, two inches long and one inch thick. Only two other cases of waxy tumor of liver were on record.

FRACTURE OF CERVICAL VERTEBRÆ.

Dr. Hamilton exhibited a specimen of fracture of the cervical vertebræ, removed from a man, a patient of Bellevue Hospital, who fell on the third of May through the hatchway of a canal boat, striking upon the back of the head and neck. He was picked up in an insensible condition and carried to the hospital. He was found to be paralyzed in both the upper and lower extremities, and was beside insensible. This latter condition was soon recovered from, but the paralysis continued. It was suspected that one of the cervical vertebræ had been fractured, although there was no displacement nor crepitus to be discovered. The symptoms pursued the usual course; the last two days of the life of the patient delirium came on, and coma and death followed in their usual courses, the ninth day after the injury. The autopsy was made by Dr. Janeway. Not having his attention directed to the possibility of there being a fracture, that gentleman examined only the spinal marrow. Opposite the third and fourth cervical was in a state of red softening. There was no evidence of any mechanical pressure at that point, as no displacement of the injured bones had occurred. Dr. Hamilton, on close examination of the specimen, discovered a rupture of the intervertebral substance between the second and third cervical, and a slight rupture of the same substance between the third and fourth cervical.

The point of interest to Dr. Hamilton was the occurrence of the softening alluded to as the result of simple concussion of the spine at that point. He had seen a case very similar to this as regards locality of the injury, in which, by displacement of the fragments, the cord had been nearly cut across; but at the time of death the parts were intact. In the specimen presented that evening no displacement could, however, be effected.

Dr. Sands did not think it was warrantable to assume that the lesion of the cord was due to what was generally understood as concussion, inasmuch as the necessary examination of the nerve tissue had not been made to settle it. It was now generally believed that all so-called concussions that resulted fatally were due to actual lesions of the nerve tissue, principally in the shape of punctate extravasations.

Dr. Hamilton was perfectly aware of the fact, and agreed with the recent authorities that concussion could not take place without some lesion to the nerve tissue. He merely wished to be understood as saying that there was no palpable lesion in such cases.

DISCHARGE OF ODONTOID PROCESS THROUGH A POST-PHARYNGEAL ABSCESS.

Dr. Sayre, in that connection, referred to a most extraordinary specimen of fracture of the odontoid process that he had seen that morning, shown him by Dr. Bayard, of New Brunswick, N. S. Two years ago a child had fallen from a height and struck upon the back of the head. Paralysis of the upper and lower extremities occurred, and the head fell sideways upon the left shoulder. The paralysis and position of the head continued for a number of weeks, the former, however, gradually improving, when Dr. Bayard was called to see the case. He straightened the head somewhat by a suitable

apparatus. The patient, at the end of some months, recovered sufficiently to be able to walk about. At the end of a year after the injury the child began to suffer a good deal from cough, and an abscess appeared at the posterior part of the pharynx. In an attempt to open this abscess it had burst and discharged the odontoid process, which had been fractured at its base. Dr. Sayre had seen the specimen, and was satisfied that there was no mistake concerning it. The child subsequently entirely recovered.

Dr. Post referred to the case of a Long Island farmer who had fractured one or two of the cervical vertebræ by falling from a hay-mow and striking upon the back part of the head. Paralysis of the upper and lower extremities had continued more or less for a period of four years, when the patient recovered sufficiently to get about and attend to his business. The parts had become consolidated soon after the injury, which allowed of the favorable termination of the case.

MORBUS COXARIUS.

Dr. Hamilton presented a specimen of diseased hip-joint removed by operation from a child eight years old, on the twentieth of May. The patient had received an injury early in life, from which no permanent ill effects had been observable. Three years ago it had received a second injury of the hip, following which the usual signs of morbus coxarius showed themselves in due course, viz., contraction of the lower limb, sinuses communicating with dead bone, &c., &c. The general condition of the patient was, however, measurably good, and Dr. H. deemed it proper to perform exsection. After the removal of the part there was no great destruction of the head of the bone or other portion in the neighborhood. The retrograde metamorphosis had removed the synovial membrane and cartilage of incrustation. The acetabular cavity was almost entirely free from disease. The specimen was not remarkable in itself, but he presented it for the sake of making the suggestion that a committee of three be appointed to examine impartially into the merits of the exsection of the hip, knee, and other joints, and report the results of their labors at the end of six months to the Society. The appointment of this committee was, on motion, made a special order of business for the executive session.

Correspondence.

AMERICAN *vs.* EUROPEAN MEDICAL SCIENCE.

LETTER FROM PROF. S. D. GROSS.

To the Editor of the Medical Record.

Dear Sir—In the editorial of your journal of the 15th instant, entitled "American vs. European Medical Science," you indulge in a criticism upon the American medical profession, which, whether just or unjust, is, to say the least, exceedingly severe, if not ungenerous. The impression which the article will make upon our foreign brethren, both in Great Britain and on the continent, will be anything but flattering to our national pride, and will, if allowed to have its sway, tend to confirm the disparaging opinion expressed of us by Sir Dominic Corrigan and others at the meeting of the British Medical Association at Dublin, in August, 1867. I, for one, must enter my caveat against such sweeping assertions.

You say practitioners of medicine may be divided into three classes—surgeons, nurses, and physicians—to the first of whom you generously concede the palm of superiority over European surgeons, while to the physicians you assign not only a low, but, in my judgment, a contemptible rank, without education, skill, or scientific attainments. The reason for this superiority, you think, is obvious. It has, to use your expression, grown out of the necessities of our pioneer life. "Therefore, as operative surgeons, as inventors of mechanical appliances, we lead both continents." American surgeons will hardly endorse this assertion. They will hardly admit that they are mere operators and inventors of mechanical appliances. They believe that they are entitled to higher praise, and to a more dignified position in the scale of science and talent, if not actual genius. If, as Chassaignac justly remarked, in the presence of my colleague, Professor Pancoast and myself, America at this moment wields the surgical sceptre of the world, the expression must have been designed to convey something more than mere mechanical perfection. An operation is one thing, and a very great thing, when it is properly done; but it is a much greater thing to know when it ought to be done, or, in other words, what are the conditions of the part and system which render such a procedure necessary, and what are the circumstances which will enable a man to tolerate the interference. I have always had the greatest respect for a surgeon who, when the emergencies require it, can dexterously cut off a limb, excise a tumor, or ligate an artery; but that feeling would be vastly diminished if, after the operation was over, I should find, upon careful inquiry, that the knife had been employed unnecessarily, or without that judgment and regard for life which every surgeon, worthy of the name, should possess, in order to fit him for a safe professional guide. I have always maintained—and I think in this opinion every rational person will coincide with me—that it is impossible for a man to be a surgeon, in the proper and more exalted sense of that term, unless he is a good physician, thoroughly familiar with the principles and practice of the healing art, considered in its widest bearing. The number of such practitioners in this country is legion. They are to be found everywhere, in the smaller towns and villages as in the larger cities, which are, perhaps, too generally supposed to contain all the science, wisdom, and skill of a nation; a conclusion certainly not borne out by the facts of the case either in the United States or in Europe.

It is said that the proof of the pudding is in the eating. If we compare the results of the practice and operations of American with those of European surgeons, it will be found that they are fully up to the general average, if, indeed, not far in advance. This statement is true alike of our civil and military experience. Where are there better, more enlightened, more able, skilful, or scientific surgical staffs than are to be daily seen in the wards of the hospitals of Philadelphia, New York, Boston, Baltimore, Richmond, Chicago, St. Louis, Cincinnati, Louisville, New Orleans, and other cities? Comparisons are odious. In my visits last summer to the hospitals of France, Italy, Austria, Prussia, Holland, Belgium, England, Scotland, and Ireland, I saw nothing to induce the belief that the surgeons of those institutions, many of them veterans, whose names are as familiar to the American medical profession as household words, are, in any respect, superior to the same class of men among us, either in general or professional intelligence, in the art of diagnosis, in therapeutic refinement, or in manual dexterity. I take it for granted that human nature, civilized, refined, and cultivated, is pretty much the same in all enlightened countries, and that professional superiority frequently exists more in the imagination than in the reality.

Are the invention and application of mechanical appliances mere mechanical affairs, requiring neither thought, talent, nor genius? Was the invention of printing, of steam navigation, of photography, and of a hundred other useful arts, a mere matter of chance, or was it the result of "brains," of genius, of the highest reasoning faculties of which human nature is capable? Let history answer these questions. Harvey discovered the circulation of the blood only after the most laborious observations and experiments, aided by th · light of the inductive philosophy; and years elapsed before our own Sims was enabled to perfect his operation for the cure of one of the most loathsome affections incident to the female sex. There is a German adage, not overrefined, but so applicable to the present topic, that I cannot refrain from quoting it: "A blind hog occasionally finds an acorn"—that is, chance sometimes reveals a great truth to a stupid fellow; but, generally speaking, a great truth can only be solved by great labor, talent, and genius.

The late war—the unhappy war, as it is so justly styled—produced the best military surgeons the world ever saw; fertile in all kinds of resources, skilled in the application of remedies, thoroughly acquainted with the laws of hygiene, and most adroit in the use of the knife. They showed a familiarity with the most minute details of their profession, and a complete knowledge not only of "mechanical appliances" but of the higher principles of the healing art.

It is news to me, as it will be to many others, to learn, as I do for the first time, that there is a class of practitioners on this side of the Atlantic called *nurses*. You say: "As nurses we are surely as good as the Europeans. We are all acquainted with practitioners of medicine who have little surgical ability, and no profound or philosophical attainment in science, who have no status in the profession, but who succeed in obtaining large and lucrative practice, and are successful with their cases, and are very popular with their patients." Wish to Heaven there were more of such practitioners. Though fools they may be, they are, according to your own showing, successful with their cases, and are very popular with their patients. Could learning and science accomplish more? Good nursing, as some one has justly said, is half the battle in the treatment of disease. If the other part be as well done, recovery will almost be certain.

"As *physicians*, we are just as certainly inferior to the Europeans." You seem to think that a medical practitioner cannot be good for anything unless he is a great scholar, equal, in point of attainments, to the leading scientific men of older countries, in England, France, and Germany; and in support of this assertion you quote the language of Dr. John Brown, of Edinburgh, the author of Rab and his Friends, of Horæ Subsecivæ, and other charming productions. "A physician is a man of universal acquirements." Your editorial says "a man may be a dexterous surgeon, or a kind and amiable nurse, without even knowing his alphabet, but no one can become a thorough, comprehensive physician without scholarship." Now all this sounds very well, and is equivalent to saying that a butcher may cut up an ox most dexterously without a knowledge of mathematics. A surgeon is no longer, as has been already stated, the mere servant of the physician, a mere operator, a mere mechanic, a position to which your language would reduce him; but he is an educated man, a thinking man, a man who uses his scalpel with brains, who knows what he is about, what is required of him to afford his patient the best chance for limb and life. "A physician is a man of universal acquirements." I was at Edinburgh last autumn, and I am sorry that the genial author of Rab and his Friends did not show me this extraordinary personage. He himself is a learned physician, and Sir James Y. Simpson, as we all know, abounds in varied knowledge. The Father of Medicine, nearly twenty-five centuries ago, made this pithy and oft-quoted remark: "Life is short, and art is long." Let us not forget this wise saying in an age when the physician has so much to learn.

"In our country we have, as a rule, been compelled to make thought, philosophy, science, attainments, culture, secondary to food, raiment, shelter, in the perpetual battle of existence." I do not see that this rule, of which you here speak, is peculiar to the United States, or to any one of the learned professions. The medical students of Europe are, as a rule, as poor as our own, if, indeed, not more so; and they have, therefore, just as much incentive, when they obtain their degree, to exert themselves for food, raiment, and shelter. It is with them, as with us, with rare exceptions, a perpetual battle for existence. They have no more leisure than we have; they have no more wealth; they have no more brains; they have, as a body, little, if any, more scholarship, thought, philosophy, science, attainment, or culture. The American mind is the most active mind in the world; and, if the American physician is not as highly educated as the English, French, and German—if he does not know as much Greek and Latin, mathematics, astronomy, and the more abstruse branches of a university education—he may justly pride himself upon his superiority of common sense, of Yankee ingenuity and smartness, seldom found in the same degree in any class of citizens in the Old World. This Yankee shrewdness is a necessary outgrowth of the genius of our free institutions, where every one thinks and acts for himself, and where every boy, before he is fifteen years of age, is essentially a "live" man. Our partridges often run about with a part of the shell upon their backs, and our children often kick lustily before they have fairly escaped from the secundines of the mother. In Europe, especially on the continent, every one swears by the sleeve of his master; and the consequence is that the mind of the pupil is still in a state of bondage long after he leaves the university.

But is it, as you assert, a fact that great scholarship is essential to the formation of a great physician? What constitutes a great physician? Is it a knowledge of the ancient and modern languages? or is it a knowledge of anatomy, physiology, pathology, diagnosis, materia medica, and therapeutics? Which would a man, struck down by disease or accident, rather have, if he could have his choice—the great medical scholar, or the great physician, destitute of ancient lore but thoroughly versed in the mysteries of the healing art, with all the resources of a fertile mind, quick to perceive the varying changes in his patient's condition, and ever ready to interpose the necessary remedies? It is not difficult to perceive upon whom the choice would fall.

I do not wish by the foregoing remarks to disparage learning in the physician. By no means. At the Teachers' Convention at Cincinnati, in 1867, no one went farther in this particular than myself; and I hope that the day is not distant—I wish to God it would be here to-morrow—when our medical schools will wake up upon this subject, and care more for the welfare of their pupils than the welfare of their pockets. All I desire is to show that great scholarship is not essential to the formation of a great physician; or, in other and more comprehensive terms, that a man may be a most accomplished practitioner of medicine, eminently skilled in all that pertains to his pursuit, and yet be a very poor

general scholar, unable to conjugate a Greek or Latin verb, or to construe correctly a Greek or Latin sentence. If the medical profession of the present day is not as learned as it was in former times, it is far more scientific and far more able to cope successfully with disease. Medicine is a progressive science, and such have been its strides within the last quarter of a century that it takes all the time which a man can snatch from his daily toil to keep himself on a level with it. Just in proportion as he wanders from his profession does he slight its requirements and its solemn duties.

"In all our American colleges medicine has ever been, and is now, the most despised of all the professions which liberally-educated men are expected to enter. A few years ago an instructor in a leading university said to two young graduates, who were commencing their labors as medical students: "Don't study medicine; anybody can be a doctor. Study law or theology." I should be sorry to think that this statement embodied a general truth. My conviction is that the professors of our literary colleges have a high respect for the talents and learning of the medical profession. In no country in the world do physicians occupy so elevated a social position as in the United States. So far as my experience extends, this feeling is universal, not peculiar to any particular section, town, or city. In refinement, in general culture, in force of intellect, and in scientific attainment they have not, I am bold to say it, their superiors in either of the other professions; while in benevolence, in charitable acts, and in scientific research they are far in advance of them.

"Study law or theology," says this sage instructor. And what, if you do? Are lawyers and divines, as a body, more refined, learned, moral, or wise than medical men? If they are, it would require a long search, even with the aid of a much larger lantern than Diogenes employed to find a man, to furnish the proof. There are, and always must be, uneducated, coarse, ignorant men in every profession, the clerical not excepted. It could not from the very nature of things be otherwise; and what is true of this country is true, to a greater or less extent, of every country under heaven. "Anybody can be a doctor!" Nothing is more true; but it is also true that anybody can be a lawyer or a preacher.

"The profession in America has been inclined to discourage rather than encourage original thought amongst its members." I agree with you perfectly, Mr. Editor, in this opinion. It is, unfortunately, too much the custom of our physicians to depreciate each other, and yet there are many, many noble exceptions. American writers, young ones in particular, would rather, it seems to me, at any time—perhaps merely to display their *scholarship*—quote a foreign than an American book, although the former should be far the inferior in all the requisites of a great work. With all our independence and liberalized notions, we are still, in a very striking degree, toadies. The time has come when, as a great profession, we should do justice to ourselves, by encouraging one another in everything that is good and useful, cultivating good feeling, improving our system of medical education, rousing our schools to a stern sense of their duty, and fostering and improving our medical literature. Jealousy should be banished from among us; and every man, however humble or deficient in the scholarship of which you so much complain, should endeavor to do all he can to advance the honor and glory of his profession.

You seem to think that our delegates at the recent International Congress at Paris fully deserved the "snubbery" which they received—not as individuals, but as members of our profession—from their French brethren. My impression, from all I have seen of the Parisian physicians and surgeons, is that they intended no such slight. The Congress was essentially a French affair from beginning to end, intended to enable a few Frenchmen to ventilate themselves, as, I am told, they did, to the great disgust of many of the delegates of other countries. Paris is the hub of the universe, and consequently all outsiders are barbarians. The French are the most polite impolite people in the wide, wide world. They know nothing of our language, and are as ignorant of our profession as the Sioux Indians. Our English brethren, who know us much better, fully appreciate us, and speak in the warmest praise of our wonderful progress and elevated position.

Like yourself, I sigh for the coming of a golden age for our honored and beloved profession. I may not witness its advent, but assuredly the time will come when America will wield the medical sceptre of the world as she now does, in the opinion of Chassaignac, yourself, and many others, that of surgery. Hundreds of young men, good and true, thoroughly educated, eminently scientific, abounding in industry, fidelity, and ambition, are, like so many bees, busy at work in every town and city in this great country, collecting honey from every flower, and throwing it into the great storehouse of the profession. Never was there such industry, such talent, such genius, such patient labor as there is at the present moment among the medical men of the Western World. I almost wish myself young again, that I might engage in the great race of glory and renown that are sure to be the lot of the young physicians and surgeons of this prolific, this illustrious age.

I have no desire to criticize your remarks respecting Philadelphia, in one of the closing paragraphs of your editorial. I only wish that they had never been written. So far as my information extends, I am right when I assert that the very best understanding has always existed between the medical men of Philadelphia and those of New York; and I am, therefore, sorry that you have indulged in expressions which cannot fail to wound the feelings of a large number of the physicians of the "City of Brotherly Love."

I have the honor to be, dear sir, very truly and respectfully, your friend and obedient servant,

S. D. Gross.

Philadelphia, May 20, 1869.

A Large Western Baby.—A Detroit lady was delivered recently of a well-formed male infant, twenty-four and a half inches long, weighing sixteen pounds. In effecting the delivery the forceps were brought into requisition, the mother being rather undersized, although a well-proportioned woman. Her weight after parturition was only ninety-two pounds.—*Detroit Review of Medicine and Pharmacy.*

The Disciples of Esculapius in San Francisco.—We learn from the *California Medical Gazette* that the number of doctors in the "Golden City" amounts to 354. Supposing the population of that city to be 135,000, there is one doctor to every 381 people, which shows that even there the inhabitants are overwhelmed with regular physicians. The number laid down does not include the irregular varieties, such as Botanic, cancer, Chinese, astrologists, waterists, and one of the Baunschedismus order.

Tracheotomy in Croup.—Nélaton saved his first case of croup when tracheotomy was performed, and then operated twenty-three times without a recovery. Probably he operated under all circumstances, like the majority of the French surgeons.

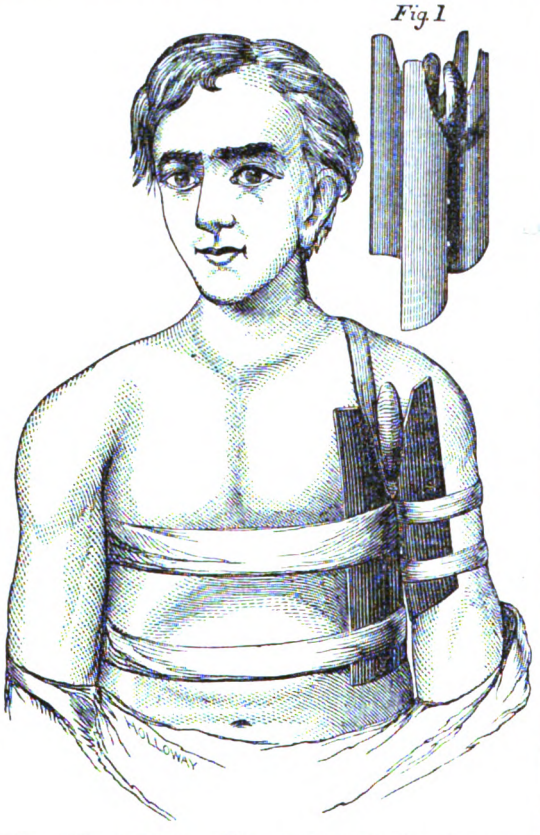
New Instruments.

RICHARDSON'S SPLINT,

FOR THE TREATMENT OF FRACTURES OF THE CLAVICLE, SCAPULA, AND NECK OF HUMERUS.

Dr. Haynes L. Richardson, of this city, has devised a very useful and valuable apparatus for the treatment of fractures in the neighborhood of the shoulder. The accompanying illustrations will give a better idea of its construction and mode of application than any word description. It is, as will be seen, composed of three parts, and has three points of attachment, viz., to the

Fig. 1



side, axilla, and arm. The arm and body pieces are semi-cylindrical in shape, and are composed of some flexible but moderately stiff material like leather covering a pasteboard foundation, hard rubber or papier maché, and are fastened together by means of rivets, with sufficient space being left between them to allow the passage of strips of adhesive plaster. The crescentic pad is received as a crutch in the axilla.

For fracture of the clavicle the crutch is crowded firmly in the axilla, the arm piece secured to the arm by circles of adhesive strap; the shoulder is then raised and the arm carried backwards until the fragments are brought into position, when the body splint and crutch are secured alike by straps of plaster.

For fracture of the scapula the arm is carried forward instead of backwards, before the splint is secured to the side. For fracture of the *humerus* the arm is secured in its most natural and easy position. In all other respects the splint is adjusted the same for fracture of either of the above-mentioned bones. After the splint has been applied the arm may or may not be flexed at a right angle on the chest, and supported by a sling from the neck.

This apparatus is simple in its construction and application, and differing from all other appliances in not interfering with the opposite shoulder. It is adjusted with great ease and dispatch (*neither rings, pads, nor bandages being required*), and will retain fractures of the above-mentioned bones on either side in position better, and with much greater comfort to the patient, than any other apparatus now in use, and does not need to be readjusted during treatment. It has been used in several cases with entire satisfaction to the surgeon and the patient.

Medical Items and News.

Dr. John B. Chapin, formerly of Bingham Hall, has been appointed Medical Superintendent of Willard Asylum for the Insane.

Dr. Louis Elsberg has been appointed Clinical Professor of Diseases of the Larynx, etc., in the Medical Department of the New York University.

Dr. O. M. Pray.— *Whereas*, The New York Ophthalmological Society has, by sudden death, been deprived of one of its members, Dr. Orestes M. Pray,

Resolved, That we deeply deplore the loss of one who in a brief career had already given evidence of fine abilities, and who gave promise of a noble future, both as a skilful practitioner and scientific investigator.

We esteemed him not only for his talents, but for his lovable personal qualities: the latter no less than the former will endear and perpetuate him in our remembrance.

To his family and near relations we may be permitted to express our sincere sympathy; though we know that our words can do little to assuage the grief which follows upon so great a calamity.

Resolved, That these resolutions be published in the medical journals, and a copy be sent to the family.

O. D. Pomeroy, M.D., *Secretary*.

Statistics of the Pennsylvania Hospital.—We learn from the last "Annual Report of the Pennsylvania Hospital," that one thousand nine hundred and fifty-eight patients were treated in Pennsylvania Hospital for the year 1867-8. The proportion cured was 71.43 per cent. Since the foundation of the Hospital, in 1752, 80,968 patients were admitted; 52,454 were discharged cured, and 7,708 died.

Various Medical Institutions in Philadelphia.—There are *nine* medical colleges in Philadelphia, viz.: Jefferson College and the University of Pennsylvania, two dental, two eclectic, one woman's, and two homœopathic.

New Publications.

Self Enervation; its Consequences and Treatment. By C. S. Eldridge, M.D., Bay City, Michigan, with an Introduction by Prof. Jos. Hooper. Chicago: C. S. Halsey, 1869.

The Physiology of Woman, and her Diseases, etc. By C. Morrill, M.D. Boston: James Campbell, 1869.

Practical Manual of Treatment of Club-Feet. By Lewis A. Sayre, M.D., N. Y.

On the Functions of Digestion, and its Disorders and their Treatment. By F. W. Pavy, M.D., F.R.S. From 2d London ed. Phila.: H. C. Lea, 1869.

Original Communications.

NOTES FROM JAPAN.

By H. ERNEST SCHMID, M.D.

WHITE PLAINS, N. Y.

One of the most beautiful islands that compose the insular empire of Japan is unquestionably the southernmost of its group—the mountainous (but to the mountain tops fertile), evergreen Kiusiu. To the traveller especially, who has just left behind him the low lands, that stretch out on both sides of the Yang-tse-kiang—so low, that they remind one of Thomas Hood's "flatulent" Holland—and who has passed the numerous barren and rocky isles that skirt the Chinese coast, it appears as if a terrestrial paradise was opened before his enraptured eyes, when approaching the beautiful *Niphon*.

The slopes of hills and mountains on every side are either covered by magnificent forests or cultivated in terraces to the very summits. Rice fields and tea hedges are everywhere. Numerous small but ever-living streams supply the water for irrigation at all times in abundance. The sea forms, besides the beautiful harbor of Nagasaki. many fine bays of smaller extent, and pretty coves, all teeming with myriads of various kinds of delicious fishes.

The natives of Kiusiu are generally small in size, far inferior in that respect to their near neighbors of Northern China, but possessing like them the lymphatic temperament, slow to take on inflammation, and being therefore excellent subjects for surgical operations. Unlike the Chinese, however, they are ever ready to acknowledge superiority in whatever it may exist, amongst foreigners, and are eager to adopt improvements. They are bright, quick in understanding, extremely polite and courteous, kind and obliging, hospitable and convivial. They are greatly given to feasts, holidays, festivities and convivialities generally. In fact the fondness for strong drink is fostered to such a deplorable degree, that it has been stated, and my experience forces me to add, "with but too much truthfulness," that every night sees three-fifths of the inhabitants of Nagasaki intoxicated. And they number nearly 80,000.

The liquor called "saki," which they prepare from rice, is a fiery drink, rapidly inflaming the brain, and in a remarkably short time coloring the face and whole head with a perfect crimson hue. Everybody, regardless of age and sex, drinks saki. And everybody likewise devours daily quantities of confectioneries. It is astonishing to see how great the number of stores where these hurtful delicacies are kept for sale. A household seems never without some of them, for it is the custom to offer them to every guest, as soon as he has been served with the stereotyped cup of tea (without sugar or milk), and the tray containing burning coals and ash-box for his pipe. I would state here in parenthesis, that custom furthermore requires the guest to wrap up the amount of dainties in a sheet of white paper, on which they are presented to him, and take them with him, if he does not care to eat them during his visit.

The climate is very mild. During a two years' residence I saw snow only once, and then it lasted scarcely two hours. But the effect produced by the luscious oranges shining through the leaves, covered with this unusual visitor, was exceedingly novel and striking. Ice I have never seen there. It only forms occasionally in little icicles, during a cold, north-west storm in some place exposed to it and not touched by the sun's rays. Kiusiu has a rainy season of from thirty-five to forty-five days, during which it rains incessantly, and does so the rest of the year besides a good deal, so that yearly an amount of rain falls which is not reached in any other place on the globe where meteorological observations have been made.

In the great consumption of rice, fish, confectioneries and saki, in the manner of dressing, and in the damp climate, we find the principal causes for the prevalent disorders met amongst that people.

Making rice their main article of diet, they are, like all Eastern nations who live in the same manner, greatly troubled with flatulence. At certain festivals they prepare a peculiar rice-cake, in the preparation of which this grain is converted into an almost india-rubber-like substance, so indigestible and injurious to the economy, that its use is invariably followed by perfect epidemics of purulent ophthalmia and pustular eczema. Strange to say, many of the people know this and yet they continue to eat it, not because it is pleasant to their palates to a very great degree, but simply because custom demands its preparation on certain occasions.

Fish, which figures next to rice on their diet-list, becomes, under some circumstances, a fruitful source of disease. It is prepared too often so as to be as unfit for the stomach as the above-mentioned rice-cake. And in certain very poor communities the people eat it still after it has become half decayed; nay, they scarcely ever consume it at all, except thus damaged, since their poverty does not permit them to purchase the more expensive fresh and sweet article. I am convinced that to it must be attributed in a great measure the production of so much leprosy found in those very places. And by this term I do not mean the scaly eruptions, called Lepra Græcorum and L. Squamosa, nor the Pachydermia (Elephant. Arabum, Barbadoes leg), for the scaly disease is tolerably harmless and the Pachydermia are mostly restricted to the legs and scrotum, or at any rate to single parts—but I mean the real leprosy (L. Arabum, Elephant. Græcorum), which attacks chiefly the face, hands and feet, and manifests itself in the following forms:

1. *Lepra Tuberculosa*, producing tubercles in the skin of flesh color.

2. *L glabra* and *anæsthetica*, accompanied by loss of sensibility, generally with discoloration of the skin.

3. *L. articulorum* and *mutilans*, causing loss of members, vesicles on the joints, the eyes, &c.

4 *Morphœa*, making spots upon the skin, commonly white (M. alba), but also brown or black (M. nigra).

In my inquiries after the existence of *Leprosaria*, I could only learn of one, at Miaco, the great city of Nipon, where the supreme Mikado resides. This institution is supported by the people, independent of the government. There the lepers receive medical treatment. These miserable beings are very numerous in Miaco, very scarce in Nagasaki, but count largely again in Amakura, in Omura and Ch'Kngo. In the latter place, built upon the low, marshy banks of a river, which in its frequent inundations leaves constant large pools of water standing between and underneath the houses, the people live on scarcely anything else but this cheap, because damaged, dried fish, and hardly a single family can be found there free from leprosy.

In my daily clinics I have noticed of the four above-enumerated forms most frequently the L. mutilans and articulorum. It may be of interest to mention here, that this L. mutilans shows a very peculiar feature in Southern Africa. There, namely, the diseased joints do not drop off as they do in Japan, leaving a stump just as if amputation had been performed; but they

seem to melt away, or shorten away, so that when, for example, the first joint of a finger is lost, the nail is not lost with it, but is found on the second joint.

In Nagasaki leprosy is only sporadic; in all the other named places it is decidedly endemic.

Amongst its most evident causes stands first, inheritance. *Contagion* has been called a cause, but as far as my own observations go, it can hardly be considered one. Even sexual intercourse does not seem to impart it. A damp and changeable climate and an unhealthy diet have much to do with its production. In fact, it has appeared to me that the greater the dampness of climate and the marshiness of the soil, the poorer the people living on it, the more damaged their food, the greater the numbers of leprous families. Of the various therapeutical means employed by the native physicians for this disease, I found principally used the Chinese medicine, taifushi. The meaning of the Chinese character for it is: "Great Maple Sun." It is an oily substance made of the nuts of a tree. As prepared in Japan, it is of a brown color; whereas, the Chinese article is white. It is used externally—rubbed on the sores. Another remedy employed is the Hakusha, a native red flower. This is given with the "brown cooked inside of a deer's head." * Another still is the Tasf'snhi san ks'rai made into pills rolled in gold leaf. But of late the best physicians give the taifnshi with quinine.

There exist no laws in Japan about lepers, yet they are, by common consent, a proscribed class, who are forced to stay by themselves, because no one in good health will admit them into his house, more especially if they are very sick. It is, therefore, perfectly impossible for a leper to marry into a non-leprous family. No healthy woman in Japan will share a leper's bed and board.

All records on that malady date its first appearance in Japan only as far back as from about 1234-50.

No treatment is of any avail, not even in the lighter forms, because the patients have no means of changing their mode of life.

But all kinds of skin diseases are prevalent amongst the Japanese, affording an unsurpassedly rich field for study in this specialty. From numbers of interesting cases I select only two, on account of the rarity of their occurrence. *One*, a genuine case of *Kelis vera*, occurring in a girl (Onoshi) 20 years of age. It was of remarkably large size, measuring in its locality on the back, between the shoulders, from above downwards seven inches, and from side to side four and a half inches. According to Wilson, the total number of recorded cases amounts to only 24, of which he himself saw 7. But it has been described in a few more instances in Ireland, and Hebra also swells the number. My patient took for some time Donovan's solution without any change in the disease whatever, but experienced great relief from the burning pain in the abnormal growth by the constant application of an ointment made with the iodide of lead.

The second case alluded to was an hypertrophy of the skin of the penis, strange to say, scarcely involving the scrotum at all. It gave to the organ the appearance of an elephant's trunk, being, like as this is generally held by that animal, a little bent at the end, with the meatus enlarged until it had become as wide and thick-lipped as the man's very mouth itself. He, of course, could no longer indulge his sexual desires, and for this reason came to consult me. I had some life-size drawings made of this remarkable penis, especially since no books speak of such disorder of this member, and because it only occurred in one more instance on the whole island as far as the memory of the present generation goes.

* Such is the literal translation of the Chinese character for the medicine.

LIGATION OF THE INTERNAL AND COMMON CAROTID ARTERIES.

SECONDARY HÆMORRHAGE, FOLLOWING THE SEPARATION OF THE LIGATURES, ARRESTED BY TR. FERRI CHLORIDI.

By W. H. BRAMBLETT, M.D.,

NEWBERN, VA.

This case never having been reported, and deeming it worthy of record, I send the following report, made from memory, and consequently imperfect, as the notes of the case were lost in the confusion attending the disruption of the Confederate armies:

Capt. H——, 5th Ga. State Reserves, age 47 years, was wounded December 10, 1864; a minié ball entering the left cheek where the malar bone articulates with the superior maxilla, comminuting the former, and ranging directly backward immediately under the base of the skull, impinging against the base and inner border of the mastoid process, and passing out at the back of the neck.

He was picked up on the field the day after the battle, and sent by railroad to hospital at Macon, Ga., without having received any medical attention. He had not the appearance of having lost much blood. The fractured and comminuted malar bone was removed, and simple water dressings applied; suppuration was established with healthy granulations, and the wound seemed to be rapidly healing; but on the tenth day secondary hæmorrhage occurred, with copious flow of arterial blood from the orifice of entrance, which was controlled by pressure on the common carotid artery till medical assistance arrived. I found the patient lying on the bed, the nurse holding the artery. Upon relaxing his hold, blood continued to flow from the wound. A consultation of the surgeons present was called, and ligation of the internal carotid determined upon. The ordinary external incision was made, the artery exposed, and ligated, as was supposed, about three-quarters of an inch above the bifurcation of the common carotid; the hæmorrhage from the wound in the face ceased, and the edges of the incision were brought together with sutures and adhesive straps. The ligature came away on the fourteenth day without any hæmorrhage; the incision having closed up, with the exception of a small opening. This favorable condition was destined to be of short duration; for, on the following morning, in the effort to raise himself in bed to eat his breakfast, an alarming hæmorrhage, from the small opening remaining in the line of the incision in the neck, came on; it was controlled again by pressure on the common carotid, until medical aid arrived. Whenever the pressure was relaxed, a jet of arterial blood was discharged. Ligation of the common carotid artery was plainly indicated. The artery was exposed by the ordinary external incision; the descendens noni nerve pushed to one side, the sheath of the vessel opened, and the ligature applied below the omo-hyoid muscle; the hæmorrhage continuing from the reflow of the blood through the external carotid artery, that was also secured; and finally the superior thyroid, as a slight flow of blood continued after the ligature was applied to the external carotid; that vessel making off near the bifurcation, between the ligatures on the common and external carotids. In the operation it was found that the hæmorrhage proceeded from the proxi-

mal end of the internal carotid, and that the ligature to that vessel, instead of three-quarters of an inch, had been applied within half an inch of the bifurcation of the common carotid; no clot having formed in the proximal extremity—or, if it had, was forced out and washed away—there was no hæmorrhage from the distal extremity of the vessel. The patient progressed favorably. The ligatures separated, and came away without hæmorrhage; that from the common carotid about the eighteenth day, the incision having healed, with the exception of a small opening admitting the lit le finger. A few hours after the ligature from the common carotid was removed he got up, and, in straining at stool, had a gush of blood from the opening remaining in the incision. This was also arrested by pressure on the common carotid below the incision. Relaxation of the pressure was followed by an alarming flow of arterial blood; much blood, however, had not been lost, as the vessel was promptly compressed. A religation of the common carotid I regarded as out of the question, and in this dilemma I determined to resort to styptics and pressure. A piece of cotton was saturated with Tr. Ferri Chloridi—having no perchloride or subsulphate in our supplies—and introduced into the wound, a compress applied and retained in position by a bandage as tightly drawn as it could conveniently be worn. The dressing was left in the wound two or three days, when it was removed without a recurrence of the hæmorrhage. The compress was retained, and the bandage kept as tight as it could be worn; the wound in three weeks had healed perfectly, and the patient was furloughed and went home.

After the application of the ligature to the internal carotid, no more hæmorrhage occurred from the wound in the cheek, and it rapidly healed. The orifice of exit, after discharging some spicula of bone, healed without trouble. After the last hæmorrhage, while the patient was under treatment with the styptics and compress, he was not allowed to exert himself in any way, anything else but the recumbent position was strictly forbidden, his bowels were moved by aperients and injections, and not allowed to strain.

In the operations I was assisted by Drs. D. Herndon, Mobile, and S. P. Green, Memphis.

CONGENITAL FISTULA OF THE NECK.

By T. H. POOLEY, M.D.,

YONKERS, N.Y.

The following case is reported, simply from the rarity of the phenomenon presented, not that it is a condition of any practical importance in any case, certainly not where the fistula is as incomplete as in the present instance.

I attended Mrs. C. in labor with her first child, and when the child was born my attention was directed to what looked like an abrasion of the skin in the front of the neck, and at first I thought I might inadvertently have scratched it with my nail.

Upon examination it proved to be the opening of a little sinus or fistula passing somewhat obliquely from before backwards and downwards into the tissues of the neck for about half an inch, and just large enough to admit the ordinary sized probe of a pocket case.

No communication with the trachea could be detected, though carefully sought for. The opening of the little fistulous canal had the ordinary mucous appearance of such orifices. Just above it was a similar little fistula, but not so deep, barely an eighth of an inch; no discharge, either of fluid or air, was ever observed to issue from either of them. The child died, when only 2 months old, of intestinal obstruction, but no post-mortem examination could be obtained. It seems to me that this must have been one of those fistulous communications with the trachea occasionally met with, and spoken of by authors, the internal orifice of which had closed, and it is most likely the external opening would also have closed spontaneously had the child lived. Even when the communication with the trachea remains open these fistulæ seem to give little or no trouble, and are as harmless as inexplicable; the fullest notice of them that I have met with is in Holmes' recent work on the Surgical Diseases of Children, Am. Edit., p. 138 et seq.

Original Lectures.

THE TREATMENT OF SUMMER COMPLAINTS BY THE BROMIDE OF POTASSIUM.

REMARKS MADE BEFORE THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK, JUNE 7TH, 1869.

By SALVATORE CARO, M.D.

"Nihil est in intellectu quam prius fuerit in sensu."
ARISTOTLE.

Mr. President and Fellow-Members of the Medical Society of the County of New York.

The paper which I am about to read before you and submit to your sound judgment, is not intended to destroy theories which have been adopted for a number of centuries by the profession generally, nor to create new ones, but simply to present you with facts that to me appear of great service to science and to humanity at large; particularly to those helpless beings concerning whom the question was lately raised, by a member of this distinguished body, as to the causes of their mortality. I have entitled this paper *The Treatment of Summer Complaints by the Bromide of Potassium.* Possibly the proper name would have been *Cholera Infantum;* but since adults as well as infants are sometimes troubled with these complaints, and have been cured by the same remedy, I concluded to adopt the former title.

Before entering the field of practical observations, permit me briefly to describe the causes, symptoms, and end of such a complaint.

Causes.—Heat, cold, and dampness, separately or combined, have a great tendency to produce diarrhœa and dysentery. Low damp ground, badly ventilated and crowded apartments are sure to create this disorder. In the summer season it is supposed to be epidemic, coming in the other seasons only in a sporadic form. I have invariably found that the exposure of babies to night air, when affected with bowel complaint, aggravates the symptoms. The bathing of infants, either by sponging or immersion, whilst in a state of perspiration, is one of the most terrible causes of this affection. Atmospheric heat is the first cause of summer complaint. Its action upon the human body is peculiar, particularly in children, the external surface of the body being generally cooler, and the internal parts warmer under its influence.

Its first effects are to produce cutaneous perspiration, and to render more active the hepatic function, as has been clearly demonstrated by Dr. James Johnson (*On Tropical Climates.* "The sympathy between skin and liver, under varying conditions of external warmth.") Whatever may be the explanation of the facts, we know by experience that high atmospheric heat, long continued, has a marked action upon the liver, increasing

and altering the quality of the bile, not unfrequently producing inflammation of itself, and, through its protracted continuance, affecting the bowels and giving rise to vomiting and diarrhœa.

The skin and liver are not the only organs affected by heat. From the imperfect consolidation of the cranium, the sun's rays readily affect the brain, suddenly and extensively influencing the nervous system. To cite a familiar instance of this, in summer days we frequently see in the street or in the horse cars, a healthy baby exposed to the sun with uncovered head, commence vomiting, without any cause referable to the stomach. Until the sixth or seventh year, the brain being but imperfectly developed, the spinal system predominates over the cerebral, and this accounts for the predisposition to reflex action upon the stomach and digestive organs. When either the brain or spinal system is affected, exhaustion undermines the feeble vital powers of the child, producing a general relaxation of the intestines, attended with vomiting, diarrhœa, and hydrocephaloid symptoms.

The infant requires proportionately more food than the adult, having not only to repair the daily waste but also to provide for growth; and yet its digestive organs are weaker. To this we may attribute the constant disturbance of the child's stomach and bowels, particularly when fed with unhealthy food. To prevent this disorder the child should be nourished from the mother's breast; or, if deprived of this, by cow's milk, until the stomach has altered in form, gained greater muscularity, and, together with the other digestive organs, the power to assimilate food of a different nature. Until the appearance of the first molar tooth, the child should have no solid food, but be made to depend upon the mother's breast or its substitute.

Nausea and vomiting are the most common symptoms of indigestion during infancy. The vomiting of indigestion must be distinguished from the regurgitation which occurs, without nausea, simply from an overloaded state of the stomach, where the mother has a great flow of milk, and the child partakes too freely. This regurgitation is not to be taken as a symptom of indigestion, but many times it is the cause of great disturbance to the child's digestive functions, by the frequent loading and unloading of the stomach; it should therefore be prevented. If what the child vomits after nursing is congulated, with sour smell, indigestion is the cause. It is accompanied by griping pains, and immediately afterwards by sour and scanty evacuations. The coagulated milk, unless either digested or vomited, will be the cause of great pains, gastric inflammation, and diarrhœa.

At all ages children that are weaned are more subject to indigestion, especially when fed with stimulating and indigestible food. The symptoms are then more severe. Vomiting of undigested food, with alvine discharges of a similar nature, are more frequent, and colic pains more violent. The child's appetite is increased; he eats with avidity and in great quantity; but the food is passed almost unaltered, affording no nourishment to the system. He grows fretful, the brain becomes disturbed, convulsions often appearing; finally he dies of anæmia. If the cramming of the stomach is the only cause of the indigestion, and consequent bowel complaint, we should first remove the causa morbi, either by an emetic or an antacid, and then regulate the diet; under this simple treatment the child will recover. But, if the presence of the undigested food has produced a certain degree of disturbance in the hypogastric and solar plexuses and large semilunar ganglia, with their nervous supply to the vessels and viscera—the fons et origo of the disease known as cholera—neither emetics, antacids, nor opiates will relieve the sufferer as efficaciously as the bromide of potassium.

There is a still more formidable cause of summer-complaint—dentition—which begins, on an average, from the sixth to the eighth month, terminating at the twenty-fourth or thirtieth (that is, for the deciduous teeth). There is no writer on the diseases of children that does not assert facts, more or less positive, to the effect that teething is the cause of summer-complaint. I have invariably found it accompanied by vomiting and loose bowels; and in the majority of cases, I have observed these symptoms at the irruption of each tooth. It is not only the irritating influence of dentition that induces a peristaltic action of the bowels; we must not lose sight of the fact, that the digestive canal is simultaneously undergoing a certain evolution, in order to prepare it to receive food suitable for the maintenance of the body at this stage of its development. At the same time the salivary glands commence to secrete saliva in abundance; and the whole glandular system assumes a rapid growth, and with it receives a new excitability, aggravating the exquisite sensitiveness of the growing parts, producing vomiting and diarrhœa. Admitting, however, that the disturbances arising at the time of dentition are but temporary, and chiefly of a nervous character, and finding the common every-day treatment fail of giving prompt relief, why do we not use a sedative to this over-excited system? In the most severe cases of odontitis, either with or without ulcerated gums or loose bowels, I have never failed to relieve the child by the local application of the bromide of potassium. Almost immediately after the first rubbing on the gums, from being turgid, swollen, and red, they assume their natural color, and a certain amount of ease is felt. Saliva commences to dribble; and, as if by enchantment, agitation, carpopedal involuntary motion, vomiting, and looseness of the bowels disappear. As the vomiting and diarrhœa in this case are not the consequence of gastro-enteritis, but of an excitement of the stomach and the intestinal mucous membrane owing to the inflamed condition of the gums, I suppose it will never be cured either by the scarification of the gums, or by the use of astringents or anodynes; but, as I shall hereafter prove, simply by the use of the bromide of potassium. By microscopical examination I have found in the vomited matter only undigested food, in different stages of disintegration, and small particles of the mucous membrane of the stomach. The fæces in the beginning of the affection are like broken-down and half-digested particles of food. When the stools have turned green, they contain decomposed blood and bile; when white, large quantities of mucous membrane, and even matter; and when red, blood. I have had no opportunity of making any anatomical sections, therefore can say nothing regarding the pathological condition of the internal organs; but I would submit it to our anatomists and microscopists to look into the trisplanchnic nerves, as well as the brain and spinal marrow, and see if there can be found anything worth studying.

Symptoms.—As a general rule, this affection sets in suddenly, announcing itself in the physiognomy of the child, changing the expression from pleasing to desponding. He grows fretful, is disturbed with pains in the body. Soon the eyes become sunken, looking dim and dead, with bluish circles around the lower lids. If not motionless, he expresses his sufferings by moans, piercing or pitiful cries. The body is cramped, the skin cold, clammy or dry, shrunken and bluish if

touched, leaving the impress of the fingers. The pulse quick and weak; the tongue moist, cold, and covered with a thin mucus through which appear the bright red papillæ.

In the beginning of the attack the child is occasionally seized with vomiting; soon this becomes incessant, the little patient ejecting whatever food or drink is offered him. His thirst is intense. The materials at first vomited are the food or drink which may have been given. This soon changes into a yellow or greenish substance like coffee diluted with milk, or dirty water. The vomiting is succeeded by the flux of the bowels. At first, the discharges are of a natural appearance, but soon change to yellow, like the yolk of an egg, mixed with slime and froth, which, when exposed to the air, will turn green. A little later, they become green as grass, mixed with white and yellow mucus, streaked with blood; dirty, like the water of washed meat; or else altogether bloody. These passages are often preceded by griping pains; they are sometimes passed unnoticed. Tenesmus and prolapsus ani are in some cases the source of great distress to patients, and annoyance to parents.

Sometimes the vomiting and evacuations simultaneously, or separately disappear, and the senses are lost, and, from being restless and agitated, the child becomes calm. This is succeeded by convulsive twitchings of the legs and arms, contortions of the eyes, clenching of the fists, with the thumbs closed within, as forerunner of a false hydrocephalus.

The thermometer, at this juncture, when applied to the skin, even in the hollow of the axilla, descends, proving the diminution of heat on the external surface of the body. The face assumes a leaden hue, and the nails are blue. In this state, all the efforts of a skilful physician may prove unavailing and the child die from exhaustion. But it sometimes happens that the child, being vigorous, survives this attack, and passes for a few hours into a comatose state, having neither vomiting nor passages from the bowels. Whilst in this condition reaction takes place, and upon awakening he has a few irregular passages, vomiting but seldom or not at all. The food, although taken with dislike, is retained.

In a few days he commences to nourish as usual, and he recovers. The food I generally recommend to weaned children is chopped raw meat.

TREATMENT.—Various have been the remedies for the treatment of this malady. I will enumerate a few:—Castor oil, sulphate of magnesia, rhubarb, ipecac, sulphuric acid, ether, chloroform, sweet spirits of nitre, liquor potassæ, carbonate of soda, lime water, Dover's powders, belladonna, hyoscyamus, hydrocyanic acid, opium, lactucarium, tridace, extract of poppy, mercurials, logwood, kino, catechu, tannin, chalk, krameria, bismuth, nitrate of silver, gallic acid, lead, iron, zinc, bark, &c. Also leeches, flax seed, bran and herb poultices, mustard poultices and baths, tepid and cold water baths, &c.

For years the above remedies, either alone or combined, have been used in various ways according to the tact and skill of the practitioner, and his success has been baffled by countless difficulties. Even in these days of enlightenment, when medicine is making such rapid progress, and we find in almost every medical periodical some new remedy for this or that malady—strange to relate, in the bowel complaints of children, excepting a slight difference in the combination of drugs, our treatment continues the same as was followed centuries ago. Let us deviate for a while from the routine of castor oil, ipecac, and calomel, and take in hand the so much talked of drug, the bromide of potassium, and see what success we shall have.

At the very sound of its name many of my confrères will deny its efficacy. But, gentlemen, if you will kindly listen to me, I shall submit to your judgment one hundred and sixty-three recorded cases of my gathering; and hope you will arrive with me at the conclusion that the bromide of potassium is an invaluable remedy, nay, a specific in summer-complaints.

CASES.

I. Casperina Watterau, one year old, born of healthy German parents; nursed by her mother under a very favorable hygienic condition; has six teeth and is healthy. July 15th, 1868, weather very damp and warm; she was suddenly seized with vomiting and free discharges from the bowels. On arriving at the house I found her very much reduced. Eyes sunken, skin and extremities cold, abdomen flat and shrunken, tongue pale, cold, and covered with mucus, pulse hardly perceptible, and impossible to count. I had the child wrapped in warm flannels, gave calomel and opium, brandy and starch injections. On the 16th no improvement. Continued the starch injections, and prescribed chalk mixture and tincture of kino. On 17th grows worse. Convulsions set in with total loss of senses. I omitted the above remedies, and prescribed twenty minims of tincture of digitalis with one scruple of bromide of potassium in an ounce of water, giving ten drops every hour. The improvement was immediate. She had no relapse of the above symptoms, became convalescent, and on the 27th was discharged.

I was again called to see her on the 2d of August, and found a phlegmonous abscess on the back of the left leg. Poultices were applied, and on the morning of the 4th I lanced it, and about four ounces of healthy pus came out. In the evening I saw the little patient, and found her very uneasy. The abscess had dried as if it had never suppurated. In the middle of the night convulsions set in as if produced by pyæmia. The bromide of potassium was resumed to check the convulsions, but had no effect, and during the night of the 5th she died.

II. Joseph Frost, six months old; born of healthy Irish parents; has two teeth; is fed from the bottle; lives in a healthy neighborhood and in well-ventilated apartments. July 29th he is seized with cramps, vomiting, and almost incessant purging. I prescribed a mixture of a half-drachm of bromide of potassium in two ounces of mucilage, giving thirty drops every two hours. After the third dose all alarming symptoms disappeared, and the child recovered. On the 14th of August he had a relapse, and his mother, having saved what remained of his medicine, gave it to him, and he was again cured.

III. John Sinott, twenty-eight months old. I took charge of him on the 1st of August. For several days he had been suffering from vomiting and purulent discharges from the bowels. I prescribed aromatic syrup of rhubarb with laudanum, but without effect. On the 2d I gave twenty drops, every hour, of a mixture of ten grains of bromide of potassium, in an ounce of mucilage, with twenty minims of tincture of krameria. After a few doses the child slept, and upon awakening asked for bread and butter. Vomiting ceased. The flux of the bowls changed from purulent to yellow; and the twenty-four to thirty passages every twenty-four hours, diminished to six. He became convalescent, and on the 8th was discharged.

IV. J. A. Crigier, twenty months old; has twelve teeth. According to his mother's statement he has never given trouble, eating and drinking what-

ever was offered him. On the 3d of August he fell from a chair, striking his buttock, apparently receiving no injury. During the night his bowels became loose, accompanied by vomiting of a dirty-water-like substance. In the morning he had convulsions. During the afternoon I found him very comatose; pulse from ninety-five to one hundred; pupils dilated; hemiplegia of the right side; alvine discharges, from twelve to fourteen, every twenty-four hours, of a thin fœtid matter. About every six hours convulsions of ten minutes' duration, accompanied by vomiting. I prescribed revulsives to the lower extremities and arms; and every two hours, twenty drops of a mixture of one drachm of bromide of potassium, in an ounce of mucilage. The motion of the bowels and vomiting ceased.

After a few days, as the comatose and hemiplegic condition continued, iodide of potassium brought matters right. On the 1st of November he had another fall, merely affecting his bowels by free motion; the bromide of potassium immediately stopped it.

V. John Balheimer, thirteen months old; has six teeth; is fed by the bottle. On the 15th of August I saw the child for the first time. He had been suffering for fourteen days from inflammatory dysentery, having passages of a purulent and bloody nature, from twenty to twenty-four, every twenty-four hours. His thirst was intense; he vomited every fluid offered him. The eyes were sunken, pupils dilated, skin corrugated and spotted blue, body cold, tongue red and dry, pulse imperceptible; no urine. In addition to this he had bronchitis with severe cough. I prescribed one scruple of bromide of potassium, in an ounce of mucilage, with half a drachm of tincture of krameria, twenty drops every two hours. The passages decreased. On the sixteenth day of his sickness, and the second under my care, he was able to eat and sleep. His passages were only four in twenty-four hours, and of a healthy appearance. In order to allay the bronchial cough, I prescribed ten drops of fluid extract of poppy, to be taken every two hours. On the 1st of September he was discharged. A few days later he had a relapse, and on account of distance was placed under the care of a homœopathist, and died.

On the 15th an elder brother was brought to me, suffering in a similar manner from dysentery. The disease was immediately checked by the bromide of potassium.

VI. F. Skerret, two years old; has sixteen teeth. He was suddenly seized with purging and vomiting.

6th of August he was brought to me, twenty-four hours after his attack. I found him restless, emaciated, pulse weak, over one hundred and fifty, skin cold, abdomen shrunken, tongue pale and cold; stomach ejecting all fluids, almost in their natural state; from the bowels, dirty-water like, odorless passages. Ten grains of bromide of potassium in an ounce of mucilage, ten drops every hour, abate all symptoms, and the next morning he is able to eat and drink as usual, and reported well.

I have had one hundred similar cases, varying in age from three to thirty months, nursing or weaned. I have treated them with the bromide of potassium, and mucilage, and have never found it to fail.

VII. S. Fay, nine months old; has six teeth; nursed by a healthy mother. After fifteen days of diarrhœa, with from fifteen to twenty passages every twenty-four hours, is cured by a mixture of one drachm of the bromide of potassium, in an ounce of mucilage, twenty drops every hour.

I have had fifteen similar cases in every form, having been sick from fifteen to twenty days before coming to me, all treated and cured by the bromide of potassium.

VIII. D. Burk, two months old; nursed by a healthy mother. The child was taken sick with convulsions, vomiting, and diarrhœa. Weather warm and damp. On the 31st of August, a few days after his attack, I found him with his eyes moving in every direction, but without taking any notice; pupils dilated; feet and hands bluish and cold. The pulse could not be found. He was vomiting every ten or fifteen minutes; stools irregular, but very frequent, varying in color, white, green, and yellow.

Twenty drops of a mixture of one ounce of mucilage with ten grains of bromide of potassium, taken every hour, cured this baby, and five others similarly attacked.

IX. J. Murray, five years old. This child, when born, although very healthy, only weighed three pounds and a quarter His mother died three months after confinement of hypertrophy of the heart. His father is a sober, healthy Irishman. The child was fed from the bottle. He struggled along through many diseases, having had hydrocephalus, measles, scarlet fever, diphtheria, nephritis, bronchitis, and, once a year, a severe attack of dysentery, commencing with the warm weather, and lasting until fall, which I found very difficult to cure. On the 26th of August he was seized with a profuse flux of the bowels, accompanied by vomiting; and when brought to me he was almost a corpse. I thought this an excellent case to try the efficacy of the bromide of potassium. I gave half a drachm, in an ounce of water, thirty drops every two hours. His father came to my office the following morning without the child. His first salutation was, "My child is better; why did you not give the same medicine last year?" The child continued to improve, and in a few days was perfectly well.

X. J. McEvoy, twelve and a half years old: a healthy boy attending school. August 13th, having eaten a bellyful of green apples, he was seized with cramps in the belly and legs, colic pains, vomiting, and loose bowels. For forty-eight hours his parents doctored him with castor-oil, paregoric, cholera drops, mustard baths, &c., &c., but without giving relief. I was sent for on the 15th, the third day of his sickness. I found him with eyes sunken, skin cold and corrugated, extremities bluish, which upon being touched would leave the white impress of the fingers for more than twenty-five seconds. The abdomen was almost stuck to the vertebral column; breath hurried and hot; tongue pale; voice scarcely audible. The boy was shivering with cold, although covered with mustard plasters, blankets, etc., and in an exceedingly hot, low-ceilinged room, on the top floor. His thirst was intense. The drinks given him were, rice-water, beef-tea, brandy and water, ice-water, milk-whey, etc. No sooner taken than ejected indiscriminately, both up and down, almost in their natural state. I thought this case almost hopeless, but trusting to the efficacy of the bromide of potassium, I prescribed a half drachm in an ounce of water, a teaspoonful every two hours; also a flaxseed meal poultice over the abdomen. The second dose caused great reaction, stopping the vomiting and flux of the bowels, and the boy fell asleep. The next morning I found him in his hot, unhealthy room, laughing and well.

I have had twenty-five similar cases, ranging from twelve to forty-six years of age.

XI. D. Burk, twenty-four years old; sculptor. On the 15th of August while digging a hole in his courtyard, near the privy, in the heat of the sun, he was seized with vomiting, discharges from the bowels, and cramps. At first the passages were brown and fetid, and the vomit of a yellowish and greenish color. When I saw

him the following day the conjunctiva of both eyes was injected; pulse full, over one hundred and twenty-five per minute; skin hot and dry; tongue moist, but breath very warm. The vomiting had almost ceased; cramps were continuing in the legs; the passages had changed from brown to the color of meat-washings, copious and very painful. I ordered him to be sponged with cold water and bay rum; his limbs rubbed with a liniment of olive oil and chloroform; and gave internally one drachm of bromide of potassium in two ounces of mucilage, with twenty minims of the tincture of krameria, thirty drops every hour. After the third dose his skin became cool, a genial perspiration diffused itself, and he fell asleep. From 3 P.M. to 11 A.M., he had but three scanty passages, yellowish and without pain. The third day he was well.

I had two more similar cases, ; one, a plumber, becoming sick after opening a waste-pipe; the other, a carpet weaver, living in Newark, N.J., in a damp low region. When this last-mentioned man came to me, he had been sick for twenty-one days, with clear bloody passages, three every two hours. I prescribed the bromide of potassium as above, and in three days he was able to work.

XII. Mrs. Debaun, twenty-five years old; of nervous temperament; the mother of several children; lives in one of the shanties in 36th street, between 10th and 11th avenues. She is very fretful, crying at trifles. She keeps constantly brooding over the loss of a daughter, and is almost crazy. From fretting, loss of rest, and want of nourishment, she is seized with nervous dysentery of several days' duration. One drachm of the bromide of potassium in an ounce of water, a teaspoonful every two hours, cures her.

XII. J. McDonald, four years old. For several days he had bloody dysentery and tenesmus with prolapsus ani. After a few doses of the bromide of potassium, the dysentery ceased. Unfortunately, from neglecting to return the rectum, it became strangulated and mortified; and consequently the child died.

XIV. J. Higgins, a healthy infant, deprived of the breast from his mother's dying seven days after confinement. When only three days old he began to suffer from retention of meconium. All nourishment was ejected with great force, even the breast milk of a woman confined five days before his birth. The stomach, from the irritating action of the meconium, could not retain either medicine or food, nor could the bowels be moved. Ten grains of the bromide of potassium in an ounce of orange-flower water, ten drops every hour, put a stop to all disagreeable symptoms; the baby slept, its bowels moved, and after the discharge of the meconium, it commenced to nourish from the bottle without any further disagreeable results.

I had three similar cases, not owing to the mother's death, but the infants being deprived of the maternal nourishment from other causes.

XV. Mr. A. B——, seventy-five years old; of nervous temperment; healthy, but weak from advanced age. In the beginning of September he went to Tarrytown to spend a few days with friends. After taking a ride in an open wagon, along the banks of the Hudson, the atmosphere being raw and damp, he found himself, upon returning home, stiff and unable to walk. He was brought to New York, and on the 7th of September I was called to see him. I found hemiplegia of the left side, and commenced to treat him with the usual remedies for this affection. Everything progressed favorably until the 16th, when the life of my patient was threatened by a profuse painless diarrhœa. I used various remedies to stop this, but without success. On the 20th, the fourth day of the attack, a teaspoonful of a mixture of two ounces of mucilage of quince seed and one drachm of bromide of potassium, taken every two hours, saved his life.

XVI. Joseph O'Brien, twenty-one months old; has sixteen teeth. He was taken sick in the beginning of September, with diarrhœa and vomiting, and continued in this state until the 1st of October, when I was sent for. I found the child emaciated; pulse very high and feeble; incessant vomiting, and frequent putrid passages from the bowels. Abdomen very tender, apparently from great sensitiveness of the mesenteric glands. As an experiment, I used the bromide of potassium, and succeeded in arresting the vomiting and flux of the bowels. But on the 8th the patient died of mesenteritis.

XVII. After a good many days of extreme fatigue, loss of rest, want of proper diet, and an abuse of iced water, whilst in a state of perspiration, I was myself seized, on the 24th of August, with painless diarrhœa, lasting for two days, having from fifteen to twenty passages in twenty-four hours. Although the weather was excessively warm, I was obliged to clothe myself with heavy winter flannels. My abdomen, particularly, was very cold. Internally my breast was burning; externally, chilly. Pulse one hundred, but weak; tongue cold; throat hot and constricted. My head was as if in a furnace, although otherwise without pain. Urine scant, dribbling a few drops when I went to stool. At every evacuation I felt as if my intestines were sinking from me. I was restless and shaky, as if seized with palsy. During the evening of the 26th, I took, every hour, five-grain doses of bromide of potassium in pure water. No sooner was it taken, than a pleasing sensation of heat diffused itself through the abdomen, and my head became cool. The creeping chills were replaced by a gentle heat. After the second dose I fell asleep for six hours, perspiring profusely; and in the morning called for my usual cup of coffee and ice, and resumed my practice.

XVIII. During the riot in this city, a boy about twelve years old was struck between his shoulders with a club, by one of the rioters. He fell insensible, and was carried home. A few minutes after his arrival he commenced to vomit the contents of the stomach; afterwards a dirty and yellow watery substance. For two days nothing could stop the vomiting. On the third day I gave him the bromide of potassium, not with the intention of stopping the vomiting, but to make him sleep. No sooner was the first dose administered than the vomiting ceased, and he slept.

XIX. J. McG——, thirty-four years old; porter in a store in Chambers street. Some time in April, 1866, after pumping water, and whilst in a state of perspiration, he assisted the plumber to open a waste-pipe, from which arose a stench so terrible as to cause all hands to vacate the premises. He remained to finish his work, but was soon obliged to stop, being suddenly seized with vomiting. He was conveyed to his home in 28th street, between 6th and 7th avenues. He sent for his family physician, and after five weeks of unsuccessful medication was given up. The poor man, in an exhausted state, sent for me. I found him very weak; pulse ranging from one hundred and twenty to one hundred and thirty, small and compressible; vomiting every particle of food taken, whether solid or liquid. I used various remedies, but after five weeks of medication I was as unsuccessful as my predecessor. Fearing for the life of my patient, I called in consultation Professor A. Clarke. After a careful examination of the case he arrived at the same conclusion which I had reached, namely, that the man was affected with miasmatic nervous fever producing vomiting, and that

a fair trial of the sulphite of soda, which I had already given, would probably insure success. I continued the medicine for forty-eight hours, but was disappointed. Every conceivable remedy was used without the desired results. The patient growing weaker and restless, I prescribed bromide of potassium to cause sleep. He slept, and, to my astonishment, the vomiting ceased. As he was taking nitrate of silver, bismuth, opium and belladonna, I attributed the relief to these drugs, and not to the bromide of potassium, and so let it pass unnoticed.

XX. During the summer of the same year, a child of about eighteen months was taken sick with diarrhœa and vomiting. One remedy after another was used without giving relief. The child being restless both night and day, and troubled with strabismus, I gave him bromide of potassium to make him sleep. His bowels ceased moving, and his eyes returned to their normal state.

Notwithstanding these successes, my attention was not directed to the remedy until the first case spoken of in this paper, when I used the bromide of potassium, not as a remedy for the disease, but to relieve the child from convulsions. When I saw it arresting vomiting and the flux of the bowels, I concluded it must be a good remedy for summer-complaint.

Now let us speak on the merits of the drug. Taking for granted, that in matters of fact, in medicine particularly, we can judge better *à posteriori* than *à priori*, I submit my cases and conclusions to this enlightened body. Not accepting the doctrine of some of the modern writers, that the intestinal flux is a symptom of some inflammatory affection; but adopting the opinion of the celebrated Capuron, that infancy being naturally the age of nervous sensitiveness, susceptible to internal and external impressions, easily irritated or calmed, and judging from several other cases besides those just read, I think that, in its beginning, summer-complaint arises from an over-excitement of the nervous and vascular systems, and that therefore the bromide of potassium affects it, and acts as a sure cure.

I cannot better explain the action of the bromide of potassium on the system, than by quoting the words of Headland, found on page 272 of his work, "*On the Action of Medicines:*" "The bromide of potassium, a medicine of the mineral kingdom, has been much recommended lately for its power of producing sleep; it is, however, not a true soporific, but rather a general sedative. As far as my experience goes, it acts by allaying irritability of the brain, spinal cord, and sexual system, and thus may indirectly cause sleep." And on page 283,—"The bromide of potassium, a remedy of recent introduction, is exceptional among nerve medicines, as belonging to the mineral instead of the vegetable kingdom. It quiets the nervous system generally, allays pain, promotes sleep, and subdues a morbid irritability of cutaneous or mucous surfaces, by its influence over functional disorders of the nervous centres. It is only indirectly soporific, as far at least as I have been able to judge." Mr. Gubler considers the bromide of potassium a general sedative to the nervous system, allaying irritability of the mucous membranes, and at the fauces and genital passages especially. He thinks it hypnotic, causing sleep by its sedative action on the whole nervous system. M. Vigouroux thinks it acts by diminishing vascularity of the great nervous centre. It is therefore the remedy, par excellence, for the nervous complaints that are common in large cities.—(*L'Union Médicale*, 1864.)

I have never discovered any unpleasant effects produced by the use of the bromide of potassium, and have always found it to answer my purposes. If locally applied, it reduces the excessive heat found in the mouth of the baby, caused by the inflamed condition of the gums. On introducing the thermometer into the mouth and anus of the baby, I have seen it fall four or five degrees. The drug is an anæsthetic to the nerves of the mucous membrane of the alimentary canal from the mouth to the rectum, of the urethra, the conjunctiva and the nares. It is also a diuretic. In cases where the urine has not been voided for twenty-four hours, after the first dose of the bromide it is freely passed; the skin commences to feel warm and becomes covered with a gentle perspiration, removing uræmic symptoms, causing general reaction, and invariably the decrease of the intestinal flux, and an absolute cessation of vomiting.

The medicine being almost tasteless, and of no bulk, it is easily taken by the most fastidious and troublesome child. I generally prescribe from ten to thirty grains in an ounce of vehicle, either mucilage or orange-flower water for their pleasant taste; the dose being ten to thirty drops every hour or two, varying according to the age of the patient, and the acuteness of the case. I seldom use astringents with it; but if required I select the tincture of krameria, as less disgusting than kino and others. For local application I mix the salt with mel rosarum, generally using one scruple of the first to an ounce of the latter, permitting the mother to rub it on the gums with her finger ad libitum. When used in large doses, I have not found very satisfactory results from the bromide of potassium; but I always succeed with minute doses.

You will observe that of the cases I have just reported, only three died, and the fatal result in these was due not to the bowel complaint, but to other causes. I had also four cases which I purposely and obstinately treated according to the generally adopted system. To my regret I must confess, that but one, after a long and severe struggle, recovered; the other three died.

421 West 34th St., N. Y.

Progress of Medical Science.

THE MANUFACTURE OF COLLODION.—G. Wharton Simpson (*Druggists' Circ. and Chemical Gazette*) recommends the subjoined formula for the preparation of collodion:

To make the pyroxyline, take of—

Nitric Acid, sp. gr. 1420,	3 measured oz.
Sulphuric Acid, sp. gr. 1840,	3 " "
Best carded cotton wool	2 drachms.

The cotton wool should be pulled into light flat tufts, and spread ready for immersion. The acids should be mixed in a jar, which should stand in a deep dish containing very hot water. When the temperature of the acids is 150° Fah., which must be ascertained by means of a thermometer kept for the purpose, the cotton must be immersed, a tuft at a time, as rapidly as possible, each piece being pressed into the liquid by means of a stout glass rod or spatula. At the expiration of ten minutes, lift the mass of cotton up with two glass rods, pressing away as much of the acid as possible, and plunge it into a bucket of water, which should be provided beforehand. Quickly stir and separate the cotton through the water, and, after washing a few minutes, change the water, and so repeatedly for a few hours; then wring out the water, and separate the mass into light tufts for drying. It may be spread out in a warm place, or dried over a water-bath. The cotton will have gained from 30 to 50 per cent. in weight, and will dissolve at the rate of

5 or 6 grains to the ounce in a mixture of equal parts of ether and alcohol, with very little residue. In some cases unsized paper is used instead of cotton.

The following formula gives excellent results:—

Ether, sp. gr. 725	1 ounce.
Alcohol, " " 805	1 "
" " " 820	1 "
Pyroxyline	15 to 18 grains.
Iodide of potassium, sodium, or ammonium	6 or 7 "
Iodide of cadmium	6 or 8 "
Bromide of cadmium	1 to 3 "

This should be mixed a few weeks before use. With the larger proportion of bromide it will keep upwards of twelve months.

CAMPHOR AS A PREVENTIVE OF OXIDATION.—Mr. George Wellborn (*Journal of Applied Chemistry*) finds that a small lump of camphor placed in a bottle of recently crystallized protosulphate of iron, preserves it from oxidation, the salt remaining as a transparent solution after it had been kept three months. If the odor of camphor acquired by the salt is objectionable, it may be exposed awhile before using, or it may be removed by alcoholic washing and dried.

GUYOT'S CONCENTRATED TAR SOLUTION.—Dr. Jeannel (*Journal de Pharmacie*), from an analysis of "Guyot's Concentrated Tar Solution," has deduced the following formula for its reproduction: bicarbonate of soda, 22 parts: tar (from wood), 25 parts; water, 1000 parts. Macerate together for eight days, shaking the mixture several times each day.

This preparation, diluted with sixty or eighty times its volume of water, forms a clear tar-water for internal administration; in a less diluted condition it is also employed as a lotion.

JEANNEL'S EMULSION OF TAR.—The author of this emulsion of tar considers this preparation as superior, therapeutically and practically, to any solution of tar known. This emulsion is made with: Tar, carbonate soda, āā, 10 parts; water, 1000 parts; and according to M. Jeannel, contains four times less saline matter and four times more tar, than Guyot's preparation.—*Druggists' Circ. and Chem. Gazette.*

SYRUP OF IODIDE OF IRON AND ITS PRESERVATION.—M. Jeannel (*Journal de Pharmacie*) approves of the following combination for the manufacture of a solution of iodide of iron which shall remain unchanged by exposure to the air: iodine, 8·2 parts; iron filings, 4·2 parts; distilled water, 20·0 parts; honey, 70·0 parts; tartaric acid, 0·5 parts. Mix the iodine, iron, and water in a flask, and when combination is complete, filter the green solution, and add the honey and tartaric acid. The product will contain 10 per cent. of iodide of iron.

He also observes that the addition of one five-thousandth part of tartaric acid to syrup of iodide of iron which has become bad, renders it clear, and, at the same time, notably diminishes its inky taste.

LINIMENT OF IODIDE OF POTASSIUM.—Mr. J. Coddington, of N. Y. (*The Druggists' Circ. and Chem. Gazette*), prefers this medicine in the form of a liniment prepared with Ol. Olivæ, instead of lard, which is used in the Unguentum Potassii Iodidi.

Take of—

Iodide of potassium,	60 grains.
Rose-water,	1 fl. drachm.
M. Olive oil,	1 fl. ounce.

TUBERCULOSIS OF THE CHOROID.—In the session for Dec. 9th of the Berlin Medical Society, B. Fränkel (*Boston Med. and Surg. Journal*) reports two cases, where meningeal tuberculosis was diagnosticated by the aid of the ophthalmoscope. In the first case, that of a girl of six years, vision and consciousness remained unimpaired until death, and no subjective symptom that could prove the existence of meningitis was observed. The second case, in a boy of eight, was so similar, that the physician was enabled from the appearance of the eye alone to establish the diagnosis, which otherwise would have been entirely uncertain.

Hyperæmia of the retina was observed, and close to the papilla a white, roundish spot of about one-sixth the diameter of the latter. Three other such spots were afterwards seen, all fully exhibiting the characteristics of tubercles of the choroid. For four weeks the patient made no complaint whatever of his eyes; he read, wrote and saw as usual, had neither sparks before his eyes, nor photophobia. Six weeks after the diagnosis of general tuberculosis was made, appeared the first distinct symptoms of tubercular meningitis. Both children, at the time of the discovery of the tubercles of the choroid, were in the possession of full consciousness, and showed no subjective symptoms referable to the eye. The tubercles were observed to increase in size as the disease went on; and the autopsy showed the presence of many others in the choroid which had escaped observation during life. The base of the brain presented the appearances characteristic of tubercular meningitis.

MINUTE ANATOMY OF THE SKIN IN ERYSIPELAS.—M. Vulpian, in France, and R. Volkmann and F. Stendeuer, in Germany (*Gazette Hebdomadaire*), have examined microscopically, the skin of persons affected with erysipelas, and have shown that there is a rapid and considerable infiltration of leucocytes into the derma and subcutaneous cellular tissue; an absorption and speedy destruction of the infiltrated elements; and disturbance in the circulation, with some changes in the lesser vessels. These points are considered settled.

HYPODERMIC INJECTIONS IN OBSTETRICS.—Dr. Z. C. McElroy (*Detroit Review of Med. and Pharm.*) recommends the use of hypodermic injections of morphia to relieve the smarting of the vulva and the parts adjacent, and also to quiet the "after-pains." In his hands they have acted with the most decided benefit. He injects beneath the skin of the leg, or over the bowels.

AN INFORMAL METHOD OF REDUCING BACKWARD DISLOCATIONS OF THE ELBOW-JOINT.—Dr. W. H. DeCamp recommends the following manipulation in backward dislocation of the elbow-joint: The wrist is clasped by one hand, while the other is placed back of the elbow, and the effort made to flex the arm in the wrong or backward direction, at the same time moderately pulling upon the wrist, when the bones are found readily to resume their normal position; the work being performed in far less time than it takes to describe it. By this method the coronoid process is not drawn directly into the olecranon depression as it is by pulling in the straight line, as sometimes recommended; but is lifted out of, or over it, with no more strain upon the ligaments than is required to let it pass out of its normal place.—*Detroit Rev. of Med. and Pharm.*

TEMPORARY AMAUROSIS FROM LEAD POISONING.—A patient was admitted to hospital with all the symptoms of confirmed lead poisoning. He complained of great weakness, colica pictonum, and obstinate constipation. There were leaden hues of the complexion and "wrist-drop," with the purple line along the line of the gum. About fifteen days after the symptoms of lead poisoning came on there was a practical

development of amaurosis, which increased until he was totally blind. His bowels being moved, he was put upon five-grain doses of iodide of potassium three times a day, and in fifteen days after the sight was perfectly restored.—J. F. Noyes, M.D., in the *Detroit Journal of Medicine and Pharmacy.*

THE TREATMENT OF DIABETES MELLITUS.—Dr. J. E. Manlove brings additional evidence of the efficacy of the Camplin method of treating this disease in the testimony of two cases. In each the exclusion of all starchy substances was within a very few days followed by a marked abatement of the diabetic symptoms. In each case the cure was rapid and permanent. During the course of treatment it was observed that when the patients departed from the prescribed programme of diet, the bad effects were within a few hours clearly observed, the amount of urine being greatly increased. —*Nashville Journal of Medicine and Surgery.*

TREATMENT OF EPILEPSY.—Dr. Hermann, writing in the *Lancet* on the subject of Epilepsy and its Treatment, says there are two drugs in which confidence may be placed, viz. bromide of potassium and the hypodermic injection of morphia. It is now a well-known fact that the former, when used in very large doses, has the power of postponing the paroxysms, and in some instances making them disappear altogether. Hypodermic injections have the power of producing the same result in a much shorter time. It is very difficult to explain why the action of morphia is different when given internally and when applied hypodermically, but that such is the case has been confirmed by reliable observers.

PRESERVATION OF THE SYRUP OF THE IODIDE OF IRON. —Phosphoric acid is the only acid that can be relied on for the preservation of the iodide of iron. By adding to 31 ounces of the syrup, when perfectly cool, one-half fluid ounce of dilute phosphoric acid, the syrup keeps perfectly well in any weather.—*Iowa Medical Journal.*

NEW TREATMENT FOR TAPEWORM.—Dr. Surtel (Gaz. Méd. de Paris) has tried the following method:—He gives in one dose two-thirds of an ounce of ether, followed by an ounce of castor oil two hours afterwards. The worm is thus discharged entire, and no pain is caused by the treatment.

PERMANGANATE OF POTASH IN SPERMATORRHŒA AND CHRONIC GONORRHŒA.—E. Montgomery, M. D. (*St. Louis Medical Reporter*), recommends this remedy, both generally and topically, in these diseases. In the former disease he smears a bougie with an ointment made of one grain of the salts to one drachm of lard, and introduces it fairly into the bladder once a day. At the same time he uses a strong aqueous solution (℥ i. to ℥ i.) along the dorsum penis. If the subject is robust, he gives internally half a grain in a wine-glass of water three times a day. In chronic gonorrhœa he also gives it internally—applies it as an ointment by means of the bougie, or as an injection, about ten grains to the ounce. The ointment should always be freshly prepared, as it is very easily decomposed. He also recommends the remedy in leucorrhœa.

o INJECTIONS OF MORPHIA.—Dr. Z. C. McElroy, of Zanesville, Ohio (*St. Louis Medical Reporter*), in a paper on "Hypodermic Therapeutics," read before the Muskingum County Medical Society, lays down some practical hints in regard to subcutaneous injections of morphia.

In his hands its use has been entirely confined to adult persons, or those above fifteen years of age. It is so terribly prompt and active in its effects that it is inappropriate to children or very young persons. If given, the doses would have to be very small, almost infinitesimally small. The sulphate is used in preference to other salts of morphia, because of its greater solubility, as well as the stability of the solution itself. The syringe preferred is very small, made of hard rubber, with very fine steel tube, without gilding. A point near the seat of pain is preferred for its introduction, though not absolutely necessary, for no matter at what point the puncture is made, the effects are sooner or later diffused over the whole system. When not material as to the point of introduction, or for reasons of modesty or delicacy, the insertion of the deltoid is commonly selected.

CAMPHOR DRESSINGS FOR CHANCRE.—M. Champoulin treats all chancres, except secondary, with camphor powder, and has done so for the past eleven years to his entire satisfaction.—*Practitioner.*

CREASOTE IN TYPHOID FEVER.—M. Pécholier, of Montpellier, has recently been conducting a series of interesting researches on the action of creasote in typhoid fever. Conceiving the disease to be one, *totius substantiæ*, depending on certain changes in the blood caused by the action of an organized ferment which draws from the blood the materials necessary for its nutrition, and exhales those thrown off by its decomposition, M. Pécholier has been led to employ creasote as an anti-fermentive agent. Sixty patients at the Hospital St. Eloi were chosen as the subjects of the experiment. Every day a draught, containing three drops of creasote, two of essence of lime, ninety grammes of water, and thirty grammes of orange-flower water, was administered to the patients. At the same time enemata were given, containing from three to five drops of creasote. M. Pécholier states, as the result of his experiments, that creasote employed in weak doses, either in draughts, injections, or in the form of vapor, at the outset of typhoid fever, acts powerfully in diminishing the intensity of the disease, and shortening its duration. M. Pécholier adds that the employment of the remedy as a prophylactic agent in schools, garrisons, hospitals, &c., during epidemics, would be of extreme efficacy.—*Lancet.*

NITRATE OF SILVER IN SURGERY.—Dr. J. Higginbotham, F.R.S., describes in the *Practitioner* a method of treating recent injuries, wounds, erysipelas, &c., by the thorough application of nitrate of silver. He claims that the application of the stick of caustic to the whole surface of a wound causes a dense eschar, which maintains firm pressure until healing is effected, prevents sloughing, and supersedes all other treatment, save rest.

THE SULPHITES AS ANTHELMINTICS.—Dr. Roe, of Dublin, has satisfied himself of the efficacy of the sulphites, especially of soda, in cases of tape-woom. He gives children ten grains of bisulphite of soda three times daily, preceding the treatment by an alkali, and following it by a purgative.

PEROXIDE OF HYDROGEN.—M. Stohr, Assistant Physician at Würsburg, has published a series of researches to prove that oxygenated water, or peroxide of hydrogen, applied for a long period to soft chancres, reduces the period of healing by one-half. At the same time, this liquid takes from chancrous matter the property of inoculation, and consequently deprives the chancre of all its specific characteristics. Occasionally it is essential, in order to obtain the latter result, to apply a large quantity of concentrated water; for the author has satisfied himself that it requires ten parts of the

agent to neutralize one part of chancrous pus in order to deprive it of infecting power. The same remedy has given marvellous results in cases of diphtheritic ulceration after other remedies have completely failed. The contagious character of diphtheria seems annihilated by oxygenated water, which, however, is not to be regarded as a caustic, properly so-called, for it does not destroy tissues, but acts rather on the liquids of the parenchyma, the serosity of the blood, and pus.—*Medical Press and Circular.*

Remedy in Primary Bronchitis.—Prof. J. Lewis Smith, of New York, recommends in primary bronchitis, for an infant one year old, a teaspoonful of the following mixture, every two or four hours:

℞ Spts. ætheris nitrosi	f 3 j.
Syrupi ipecacuanhæ	
Olei ricini	āā f 3 ij.
Syrupi tolutani	f 3 vij.

Another eligible formula is the following:

℞ Syrupi ipecacuanhæ	f 3 ij.
Potassæ acetatis gr.	xvj.—3 ss.
Aquæ anisi	f 3 xiv.

M. Dose: one teaspoonful for an infant of six months. If there is decided febrile action, tincture of digitalis, one or two drops, according to the age, may be added to each teaspoonful.

In the majority of cases of infantile bronchitis, this mode of treatment is preferred by Dr. Smith for the first few days; after which, if further medication is required, more sustaining, or even stimulating medicines are proper.

Unguent for Bronchocele.—Prof. James R. Wood, of New York, extols the following formula as an ointment in bronchocele and other glandular tumors:

℞ Ung. stramonii	℥ ij.
Ext. conii	3 ij.
Iodid. potassii	3 ij.
Iodini	gr. x.

M. Ft. unguent.

Etherized Cod-Liver Oil.—Dr. B. Foster, of London, states that the addition of 10, 15, or 20 minims of pure ether to every two drachms of the oil, renders the oil less nauseous, and is more easily digested.

The Contagion of Consumption.—M. Chauveau, Professor in the Lyons Veterinary School, continues preseveringly his researches on the Contagiousness of Tuberculosis. He has of late selected the intestinal surface as the field for his investigations, and through it by introducing tuberculous matter into the circulatory current he has produced at will general tubercle. The *Union Médicale* reports that he lately purchased four handsome heifers, and he tuberculized three of them by causing them to swallow 30 grammes each of tuberculous matter taken from the body of an old phthisical cow. The rapidity of the result was extraordinary. At the end of twenty days the first heifer had lost flesh to a surprising extent, its pulse was quick and full, and it coughed incessantly. At the end of fifty-two days it was killed, and it presented perfectly marked tuberculous lesions, situated especially about the mesentery and intestine. The mesenteric glands presented infiltration in so high a degree that many were of the size of the first. Their total mass weighed 1,650 grammes. All the ganglia of the bronchi and mediastinum were enlarged, and the lung was full of crude tubercle. The other two heifers presented not less perfectly marked alterations, while the fourth, to which none of the tuberculous matter had been administered, remained intact and increased in flesh.

It is proved, therefore, that animals of the bovine species contract tuberculosis by digestive ingestion, just as they take carbuncle and cowpock, as sheep take the rot, as the horse takes glanders, and as man takes small-pox. The human digestive tube constitutes an easy channel for tuberculous contagion. If bovine phthisis be identical with tuberculosis in the human species, there is, in the use of the flesh of tuberculous animals, a danger to which the poor are more especially exposed.—*Medical Press and Circular.*

Amputation of the Penis.—Dr. Vesey reports, in the *Medical Press and Circular*, a case of amputation of the penis for epithelial cancer, after which the patient was able to propel the urine a distance of ten feet. This is contrary to the experience of Mr. Erichson, who states in his work on surgery that, after amputation of the penis, the urine "always passes directly downwards between the legs."

Poisoning by Arnica.—A case occurring in a woman of 33 years of age, is reported in *Schmidt's Zahrbücher*. She had drunk two glasses of infusion made from a large handful of the leaves. The symptoms of poisoning lasted seven days, and the patient was not quite well till the 12th. The prominent symptoms were violent vomiting, intense headache, choleriform diarrhœa, with very severe gastro-intestinal colic, followed by collapse, cold extremities, and remarkable depression of the pulse. The treatment consisted principally of the use of extract of thebaine and of morphine.

Operation for Impermeable Stricture of the Urethra.—G. M. Burke, Sulphur Springs, Ind. (*The Western Journal of Medicine*), publishes the following interesting operation for impermeable stricture of the urethra in a male aged 36 years: When called to the case, January 11th, 1869, he was found suffering extreme pain from retention of urine, caused by stricture of the urethra. The extract of belladonna was applied to the penis and perinæum, and the patient was placed in a tub of hot water, all covered with a quilt, with the exception of the head; four grains of powered opium were administered. Before taking him from the bath, a small catheter was introduced down to the stricture, and on withdrawing the catheter, it was followed by urine in a small stream about the size of a small knitting-needle; with great straining, his bladder was partly emptied. During the next 4 or 5 days remedies were constantly ordered to quiet him; but on the 16th of January he made up his mind to be operated on, and was prepared as for lithotomy, on the operating table. The incision was commenced immediately over the end of the staff which had been previously introduced into the urethra until it came in contact with the stricture, which was an inch and one-fourth from the meatus urinarius; the mesial line was the guide, and the urethra was laid open an inch and a half, but he failed in passing the instrument beyond the incision; another incision was made, splitting the septum scroti to the depth of three inches, and laid open the urethra, but failed to advance the staff; next incision was made from the urethra downwards, backwards, and outwards, until the sound and sensation to the operator changed to that of cutting a green pear or sole-leather, which did not cease until the urethra was laid open through its membranous portion; the change in the cutting and appearance of the urethra gave evidence of the stricture being divided, and with some difficulty a No. 8 catheter was introduced into the bladder, and urine escaped by the catheter and around it to the amount of a quart.

Patient recovered from the influence of chloroform without any untoward symptoms; he was placed in bed

on his right side; catheter secured by a T-bandage; a large dose of morphine was administered; sides of wound brought in apposition, with cold mucilage of elm bark applied. Little blood was lost during the operation.

He was discharged from constant attention on February 5th, with instructions to introduce the instrument every day, allowing it to remain for two or three hours.

He is now walking about, able for business, and can pass his urine without pain or difficulty, in a stream near the size of No. 8 catheter; no indications of the size of urethra diminishing; suffering no pain or uneasiness of the parts, or along the course of urethra; continues use of No. 8 instrument every day; he is enjoying good health, and has a fair prospect to live to a good old age.

TREATMENT OF FISSURES OF THE ANUS.—Holmes Coote, F.R.C.S. (*British Med. Jour.*), in the treatment of fissures of the anus, prefers to divide the fissure by means of a straight knife introduced along the finger. The loss of blood is trifling, the pain momentary, and the relief at once complete. The bowels should be kept quiet for a few days by opium, and then relieved by mild aperients, such as senna and sulphur. Trousseau and Nélaton recommend enemata of ext. krameriæ, gr. 75, to water ʒ iij., used morning and evening, and retained 15 to 20 minutes, as long as there is pain on returning the injection. When the pain has ceased, they may be used once a day or once every two days. A magma of bismuth, one part to three of glycerine, applied locally, is useful. Carbolic acid is beneficial many times.

HEBRA'S MANAGEMENT OF SCABIES AND ECZEMA.—This distinguished professor of cutaneous diseases treats all his poor patients affected with *Scabies* with the application of his "Cure Salve." At his clinique a half-dozen men and boys, perfectly naked, are drawn up in line, and the old nurse takes his position before them, with a large pot of the semi-solid salve at his feet.

A small quantity is presented to each for the hands, then the forearms, arms, abdomen, lower extremities, &c., and finally, for the back; the company then faces to the right, standing in company file, when each officiates for the man before. After the friction, each individual is laid in bed and rolled in a blanket from head to foot, and there he lies for two days. He is then inspected; should he not require another application, he is now rubbed off with fine clay. Prof. H. insists strongly that the patient shall not bathe for four or five days, as the concomitant eczema is always aggravated thereby. Should the eczema require treatment, the patient is furnished with ol. cadini, a preparation of tar, which he is instructed to use. The composition of the all-healing salve is as follows: Sulphur, tar, each six ounces; soap, fat, each one pound; chalk, four ounces.

Eczema is treated according to its form. In an acute case which occurred recently, wherein the entire trunk was covered with vesicles on an inflamed base, pulverized starch was applied, and in four or five days the cure was complete. Incrustations are softened and removed by the application of cloths saturated in cod-liver oil; when either the oil is continued, or preparations of tar united with it, or alone maintained, or in obstinate forms, a caoutchouc glove or stocking is worn.—*Vienna Correspondence of Western Jour. of Med.*

REMARKABLE INSTANCE OF BURNS FROM LIGHTNING. Wm. M. Holton, M.D., of New Harmony, Indiana, (*Am. Jour. of Med. Sciences*) publishes the following remarkable case of burns from lightning: On the 25th of March, 1868, he was called to see a married woman, aged 61, who had been for some months subject to indigestion, vertigo, and numbness of the limbs, which impeded walking, and interfered with the performance of her domestic duties, and who had been, 35 minutes before he saw her, struck by lightning, while she was in an out-building. The lightning struck and shattered a tree about one foot distant; then leaving the tree about 7 feet from the ground, it penetrated the wall of the building, and splitting a corner-post struck Mrs. P. on the back of the head, where her hair was "done up" in a knot and fastened by two wire hair-pins. The hair was much scorched, and under the knot of hair the skin was severely burned. Thence the electric fluid passed down, burning the lower portion of the right ear, in which was a gold ear-ring; then crossed the throat and passed down to the left of the sternum. The burn thus produced was about 3 inches wide, covered with blisters. The fluid here left her body, and finding some other conductor passed down, still on the left side, to just above the crest of the ilium, extending thence forward and backward to the symphysis pubis. This burn was about 12 inches long, and about the same width as the first. The next burn began on the patella of the right knee, extending to the bottom of the heel, in reaching which it wound around the inner side of the leg. The lightning passed off at the bottom of the heel, bursting open the heel-seam of a strongly sewed gaiter boot.

Her husband found her a few minutes after the accident, lying on the floor, insensible, but occasionally uttering a groan. Brandy was administered, and her pulse soon rallied; the profuse perspiration diminished, and she became more comfortable. Subsequently her wounds were treated like ordinary burns, with carron oil—equal parts of linseed oil and lime water—which proved a very soothing and cooling application. Her wounds are now cured; her appetite is pretty good, and she is quite cheerful, except when left alone, when she is disposed to sleep too much. A feeling of great lassitude announces to her the approach of a thunderstorm before its coming is perceived by others.

Dr. H. had hoped that the shock she experienced at the time of the accident might relieve her to some extent of the numbness of which she had previously complained, but these hopes have not been realized, the numbness having increased rather than diminished. The lightning melted portions of the wires of her hoop-skirt, also a small part of the lower end of the steel of her corset. The steel clasp of the elastic garter, the steel of her corset, and the metal of her hoop-skirt, appear at several points to have carried off the electric fluid. Had the wound been continuous from head to foot, a fatal result would have been inevitable.

EXTIRPATION OF THE UTERUS FOR COMPLETE PROLAPSE.—Prof. Langenbeck, of Hanover, has recently performed this operation upon a woman 48 years of age, who had suffered from prolapse since the birth of her first child, eighteen years previous. She had borne nine children since then. The result was a good one. The patient removed the ligatures herself from the eighth to the tenth days. The operation was performed on the 15th of May; on the 29th she left her bed; and on the 31st she took her first walk in the open air.—*Memorabilien.*

PHENIC ACID IN SYPHILIS.—Dr. Minteforte (in the Italian *Journal of Venereal Diseases, &c.*) recommends the application to syphilitic ulcers of a solution of phenic acid in water, 5 parts to 100. Dr. Fidele de Fieri extols the deuto-phosphate of mercury, one grain a day continued for two months, in tertiary syphilis.

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THE NEW YORK HOSPITAL.

THE buildings of the New York Hospital, on Broadway, are soon to be no more. The Governors of the Institution have at last carried out the threat which has been hanging over the heads of all Knickerbockers who love to cling to old landmarks, and the noble edifices are being rapidly demolished. New Yorkers have accustomed themselves to look upon the hospital as a veritable old timer, and such it has been, in comparison with other buildings founded at the same time that have long ago made way for more modern ones. We, in this progressive age, are privileged, relatively at least, to call anything ancient that has reached the age of three-score years and ten; and the building of which we speak, having even exceeded that limit, is necessarily looked upon as a precious link between a present and past age. But alas! this link is now about to be severed, and the real must drift into the ideal.

A glance at the history of this hospital will not, we trust, be without interest in this connection.

The charter of the hospital dates back to the reign of George the Third, a very little short of one hundred years ago, having been granted on the thirteenth of June, 1771, by the Earl of Dunmore, Governor and Commander-in-chief of the provinces. The first suggestion relative to the founding of a free infirmary was made by Dr. Samuel Bard, an eminent physician and whole-hearted philanthropist of early New York. Dr. Peter Middleton, in an address delivered November 3, 1769, before Kings College (since the American Revolution called Columbia), made the following remarks: "The necessity and usefulness of a public infirmary had been so warmly and pathetically set forth in a discourse delivered by Dr. Samuel Bard,* at the college commencement in May last, that his Excellency Sir Henry Moore immediately set on foot a subscription for that purpose, to which himself and most of the gentlemen liberally contributed. His Excellency also recommended it in the most pressing manner to the Assembly of the Province as an object worthy of their attention." Farther on the same speaker foreshadowed what the institution was to be, and every one who knows anything of it is willing to acknowledge that it has nobly verified the prophecy:—"As it is to be on the most catholic and unexceptionable plan, it is to be hoped that it will meet with the countenance and encouragement of every compassionate and good member of society, whatever party or denomination he may choose to be distinguished by on other occasions."

It was not until two years after the charter had been granted that the Governors had collected sufficient funds from private individuals and the State, to warrant them in purchasing a site. They chose a plot upon which the hospital has been standing for over half a century. It originally consisted of five acres, which were purchased of Mrs. Barclay and Mr. Rutgers; and the location was considered most suitable for its purpose on account of its elevated, airy situation, and other rural advantages, not the least among which was the fine view of the Hudson River on the west. The plot nearly comprised what is now the entire square bounded by Duane, Church, and Worth streets, and Broadway, the easterly line running north and south being a little over one hundred feet from New George street, now Broadway. In order to get an entrance from the easterly side, on New George street (which although at that time being nothing more than an indifferently kept country road, was still the principal thoroughfare), the Governors afterwards purchased a front of ninety feet on the road. The other fronts on Broadway were never in the possession of the society. At the time of which we are writing, the grounds in the vicinity were little better than thickly settled farms, the lots not owned by the hospital on the line of the highway being open save at what is now the corner of Broadway and Worth street, which was occupied by two or three barns used by some of the down-town cartmen. A portion of these can be seen upon the early print of the diplomas of the hospital. New George street at that time was beautifully shaded by sycamores, elms, poplars, chestnuts, and oaks, and was already beginning to be the favorite drive for many of the aristocracy, who, by the way, mostly lived in the town proper below the present City Hall Park. Only a few good sized buildings then stood in the district, among which were Old Trinity Church, built in 1696, the Brick Meeting House in Beekman street, built in 1752, and the St. Paul's Episcopal, now on the corner of Broadway and Fulton street, built in 1765. It will then be seen that the hospital grounds were at first fairly out of town, and that the Governors, in making the selection of the site, had an eye to healthfulness and quiet.

The main or central building was commenced in July, 1773, the corner-stone having been laid with appropriate ceremonies by Governor Tryon. On the night of February, 1775, when nearly completed, the edifice

* Dr. Bard practised for more than fifty years in the city, and was the author of a curious volume on "The Malignant Pleurisy, as it prevailed on Long Island in 1749." He served the hospital as physician for twenty-three years, from 1774 to 1797, and died at the age of eighty.

took fire, and before the flames could be arrested it was almost completely destroyed. The loss thus sustained by the society was so great, that had not the Legislature come to its relief by a handsome donation, the whole project would have been frustrated. The breaking out, soon after, of the War of Independence arrested the rebuilding of the institution, and during the occupation of the city by the British, it was, in its incomplete condition, used as a barracks and military hospital. For a long time after the close of the war, the general derangement of affairs in the city prevented the actual completion of the building, and it was not until January, 1791, that its doors were formally opened for the reception of patients. History tells us that the first lot of patients numbered eighteen, three of whom were surgical. No pains had been spared to make the edifice, as a whole, as complete as the knowledge of architecture at that period would allow, and it was admitted to be the best of its sort not only on this continent but in Europe. Everything indoors was made to subserve the best interests of the patients, as regards comfort and cheerfulness; the windows looked out upon well-kept grounds, the walks for the patients were marvels of beauty to outsiders, and during the cold months the wards were enlivened by the comfortable blaze of oak and hickory, in large, old-fashioned, open fire-places.

After the War for Independence, and previous to its formal opening, the hospital, although incomplete, was nevertheless used as an infirmary for the townspeople in the vicinity, and occasional lectures were delivered to students of Medicine and Surgery by the Physicians and Surgeons of the Institution. It also appears that dissections were stealthily carried on about this time, partly upon the bodies of such paupers as had died under treatment, but mostly upon the stolen treasures of Potter's Field and the old Negro Burying Ground. All the care on the part of those interested could not keep these depredations a secret from the people, and the result was eventually the "Doctors' Riot," which took place in 1788—one of the truly memorable occurrences in the early history of the hospital. As an item of history, we are enabled to give an account of its origin from the lips of an aged "Knickerbocker gentleman," still living, who was present at the time, being then a young boy. On the south side of the main building, and from one of the second stories, some one had suspended a partially dissected upper extremity, which, being in full view of a party of boys at play in Duane street, after a while attracted their attention. A cry was raised, "A dead man has been cut up in the hospital, and his arm is hanging out of the window!" Some sailors coming up Duane street from the North river very readily took up the cry, and soon collected a crowd to storm the edifice. Some climbed over the fence, but the main body proceeded to the front entrance. Two or three medical men who were then in the institution fled, but one, a medical student, not being able to do so, crawled up one of the open fireplaces. The crowd entered, and after destroying chairs, bedding, and other articles of furniture, demanded of such of the authorities as had the courage to remain in the hospital, the perpetrators of the outrage. Failing of any satisfaction in this respect, they proceeded to smoke out the poor unfortunate who was found in the chimney. It is needless to say that he was soon forced to descend and capitulate on very dishonorable terms to save his life. It was with great difficulty that the institution was saved from the firebrand; and it was not until two or three days had elapsed, during all of which time the anger of the populace smouldered under the dampening arguments of the city authorities, that the disturbance was effectually quelled. Even at the end of that time, the instigators of the riot were determined not to be satisfied until a formal inspection of the hospital was made by a number of prominent and respected citizens.

From time to time, the hospital has been increased by additions in the shape of extensions and separate buildings. In 1806, an edifice was erected on Duane street for an Insane Asylum, and was occupied as such until 1821, when the patients were transferred to the Bloomingdale Asylum. In 1825, the deserted asylum was fitted up for seamen, and rebuilt on a magnificent scale in 1853. In 1841, a large building on Worth street was erected; and in 1850, the interior of the main building was remodelled. All of those buildings are to be demolished, the hospital removed, and all the associations that have clustered around the establishment are to be uprooted; the avenue which led to the main entrance, bordered by the richest of lawns, and crowned by the noblest of elms, is to form a new street connecting Pearl on the east with Thomas on the west. Already the royal trees have fallen one by one before the woodman's axe, and have passed away with the four generations which have found shelter under their sturdy and far-spread boughs. The sward has been ripped up, and unsightly excavations mark the place of future buildings which shall front on Broadway, and close up everything to the margin of the new highway.

The New York Hospital is not to die, however, with its old buildings; but as all of its present reputation is associated with them, we cannot refrain from a passing glance at some of the triumphs in the healing art that have taken place within its now crumbling walls. The hospital, since its foundation—a comparatively short time ago—has earned for itself a reputation not inferior to that of any other institution of its kind. The late Professor Joseph M. Smith, in an address delivered in 1855, on the occasion of the inauguration of the New South Building of the New York Hospital, in regard to this point, truly said: "There has been no case admitted into the house warranting and requiring an operation, however formidable, which has not here found a surgeon qualified by his knowledge, his eye,

heart, and hand, for its performance. Operations, of which there were few or no precedents, and so unpromising in their results as scarcely to justify their performance or repetition, have been executed with a skill that elevated the operator to the level of those enjoying the highest European reputation."

In the small operating theatre at the north of the main house, Dr. Wright Post, in 1813, made the first repetition, with a favorable result, on this side of the Atlantic, of Sir Astley Cooper's operation of ligature of the common carotid, for aneurism; it was in the same theatre, in 1817, that the same gentleman tied the first time, with success, the right subclavian artery, for brachial aneurism; it was here, in 1818, that the late Valentine Mott won his reputation as the first ligator of the arteria innominata; it was here, in 1845, that the late Dr. Kearney Rodgers tied for the first time the left subclavian inside of the scaleni muscles for aneurism; it was here, in 1847, that Buck introduced his operation of scarification, as a means of relief in œdematous laryngitis. Aside from all this, the wards of the hospital have been made famous by the teachings of the late David Hosack, John Watson, John C. Cheesman, Alexander H. Stevens, Edward Miller, John A. Swett, and Joseph M. Smith, all passed away —but with their honored names must ever be associated a reverential remembrance.

During the past century the improvements that have marked the progress of civilization have been so numerous, so rapid, so astonishing, especially in New York, that any institution which, like the hospital, has maintained its ground as a landmark for so long a period, has a history of its own, independent of the special purposes for which it was founded. That history becomes of necessity associated with the scenes that it has witnessed during its existence. Since its foundation-stone was laid, the War for Independence has taken place, followed by that of 1812, and the late Rebellion. The same walls have echoed back in turn the hoarse laugh of the British and Hessian soldiery, the writhing yell of agony of the terrified sufferer upon the old-time operating table, and the sweet, deep snore of anæsthesia. During the time its walls have been standing, New York has grown, as if by magic, from an insignificant town to be one of the greatest cities of modern Christendom. Commerce has so crowded its wharves, that our island has become fairly fenced in with the masts of every nation on the civilized globe; and traffic, with its conquering banner of progress, has forced its legions into every highway and byway. We have, figuratively speaking, been pulling down our barns and building up greater, until no room in the lower part of our town can be spared for any other purpose. Although the removal of the hospital seems like an iconoclastic proceeding, we have still the comforting thought that the building, which, above all others in that section, has been devoted to such noble charity, has been the last to yield itself to the demands of the all-powerful mammon. It is useless for us to say, that, notwithstanding the emergency of its removal, the temptation of high prices for the leases of ground, the lack of the necessary funds to maintain the institution in its present locality, etc., the hospital will be seriously missed by a very large, needy, and accident-exposed community. There will, we are sorry to say, soon be no house of refuge in that vicinity for the stranger who may fall sick by the way, and stand in need of the assistance for which this hospital, above all others, was noted. The south house, which now contains the few remaining patients, must be disposed of by the middle of February next, the express conditions of the leases of the other lots being, that no provision shall be made by the governors for the maintenance of any part of the hospital on the present grounds. The fact that the hospital has been crowded for years past, its accident wards always filled by patients from the vicinity, clearly proves the need for such an institution in that section of the city; and this want will be felt the more when the last patient is received, the last wound healed, the last ward closed, the last stone of its time-honored walls tumbled to the ground. The governors have decided to transfer the hospital to some grounds on Ninth avenue and Twenty-ninth street, and contemplate building on the pavilion plan.

The buildings will doubtless contain all the modern improvements, and no expense within the means of the society will be spared to make them suitable for the purpose; but it will be long indeed before the profession and the public can recognize it as the legitimate offspring of the "old Broadway hospital."

We are pleased to announce the fact that fifty thousand dollars of the tax levy have been appropriated for the immediate erection of two free floating baths, one in the Hudson River and one in the East River. The establishment of such baths in Boston has been productive of the greatest amount of good, and each succeeding year testifies to their growing popularity by a marked increase in patronage. The Veteran Temperance Corps have determined to secure the establishment of further bathing conveniences for the Metropolitan district, and for this purpose are holding meetings in the different churches to obtain the views of the people, and to secure sufficient funds by subscription to carry out such plans as may be adopted. It is needless for us to say that we wish the association every success.

The Truant Home of Brooklyn.—The Common Council committee on this subject have decided upon reporting to the Board in favor of purchasing the Adair site, which is located in the Eighteenth ward, for the new Truant Home. The property thus about to be acquired consists of a frame house and forty-six lots of ground. The price of the whole is $28,000.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, JUNE 9, 1869.

DR. L. A. SAYRE, President, in the Chair.

ANEURISM OF ARCH OF AORTA, UNDERGOING SPONTANEOUS CURE.

DR. FINNELL presented a specimen of aneurism of the arch of the aorta removed from a man who died suddenly at the age of fifty. The sac was of the size of a small orange, and had burst by a very small opening into the pericardium. It was found nearly filled with coagula, and had the patient lived sufficiently long his disease would in all probability have resulted in a spontaneous cure.

HYPERTROPHY OF BLADDER FROM TUMORS AT VESICAL ORIFICE OF URETHRA.

A second specimen was one of hypertrophy of the bladder removed from a man aged fifty, who died shortly after admission into Bellevue Hospital of uræmic poisoning. The viscus was so much thickened that its internal surface resembled very much that of the heart. At the junction of the urethra with the internal surface of the bladder, there were found two small tumors, which in all probability were the main if not the only cause for the hypertrophy. Both ureters were as large as the finger, and both kidneys were very much dilated, and filled with a quantity of purulent matter. The tumors were, on motion, referred to the Microscopical Committee.

HEART-DISEASE NOT ALWAYS THE ONLY CAUSE OF DEATH.

A third specimen was the heart of a man who had committed suicide by hanging. There was extensive thickening of the mitral valve with calcification, which condition would have been sufficient cause for death had none other been found. Dr. F. believed this to be an illustration of the fact that death is more frequently attributed to organic disease of the heart than it should be.

THE STOMACH IN PARIS-GREEN POISONING.

The last specimen exhibited by Dr. Finnell was a portion of stomach dried upon a frame, removed from a woman who committed suicide by taking an unknown quantity of Paris green. As is usual in such cases, the intense redness was confined to one part of the organ. Death occurred nine hours after taking the poison.

COMPLETE AMPUTATION OF ARM BY MACHINERY.

DR. HUTCHISON presented one of the upper extremities of a baker's apprentice, fourteen years of age, which had been completely torn off by machinery. The patient had been sent to a moulding mill, to procure some shavings, and hung a bag upon a projecting shaft that was revolving with great rapidity. In attempting to remove the bag, his arm became entangled in it, and his body made several rapid revolutions. The limb was twisted off at the junction of the upper and middle thirds and thrown a distance of twenty feet. When admitted to the Brooklyn City Hospital, shortly afterwards, the brachial artery was discovered hanging out of the wound and was completely closed by torsion. All the hæmorrhage that occurred was a little venous oozing. This was the first case of the sort that Dr. H. had ever seen. Both of the bones of the forearm of the severed limb were fractured, and the point of separation was so clean that it resembled almost a well-made amputation.

DR. SAYRE alluded in this connection to a similar case that had occurred in the practice of the late Dr. E. S. Cooper. The patient had also been caught in machinery, and not only the arm, but the clavicle and two-thirds of the scapula as well, had been completely separated without hæmorrhage from the body.

COMPLICATIONS OF MEASLES.

DR. LEWIS SMITH presented a specimen of lobular pneumonia and capillary bronchitis removed from a patient who had died at the age of ten years, as the result of these complications of measles. The eruption disappeared suddenly on the third day, followed by lung symptoms which terminated in death. The specimen illustrated one of the most frequent complications of the present epidemic of measles.

Dr. Smith presented a second specimen taken from a child about five years of age, who died of small-pox sixteen days after the commencement of the attack. All the usual symptoms were present save the eruption, there being no signs of this lesion even discoverable in the mucous membranes. The prognosis was at first favorable, but a harassing cough soon showed itself, which pointed to pulmonary complication. At the autopsy nothing of any account was found excepting an ulcer of considerable extent (as large as a small pea) extending three lines above the vocal cords and crossing them below. There was no very decided injection of the bronchial tubes. Some of the bronchial glands showed suppuration in their interior. The liver had undergone fatty degeneration. The gall bladder, as is usual in such cases, was merely filled with mucus.

CYSTO-SARCOMA OF PALM OF HAND.

DR. DELAFIELD exhibited a tumor removed by Dr. James R. Wood with the following history:—The patient, who was thirty years of age, and in the enjoyment of good health, ten years before noticed for the first time a growth making its appearance in the palm of one of his hands. He had been employed in the manufacture of oil in some such way as compelled him to use an instrument which pressed very firmly against the part. Hence he attributed the growth to that circumstance. It increased in size but slowly until within the previous three months, when it grew more rapidly. It was found that the tumor was apparently not connected with the flexor tendons, as the patient could flex and extend his fingers without communicating any motion to the tumor. When removed, the mass was found situated between these tendons and the plantar fascia, surrounded by a dense sheet of connective tissue. The growth was two and a half inches in diameter, ovoid in shape, with walls of unequal thickness, and filled with a semi-solid substance. Its microscopic structure was the same in all parts. There were masses which grew continuously with the wall of the cyst, and little masses in its interior connected with narrow pedicles. Both of these were of the same structure, composed almost entirely of cells of connective tissue, with their usual multiform shapes. It was then a cysto-sarcoma, which, in that particular situation, he had never seen or heard of before.

CYST OF IRIS.

DR. KNAPP made the following remarks upon a *cyst of the iris:* The specimen I have to show is only a microscopic preparation. It is part of an *iris-cyst* which I removed by operation a week ago. The patient, a healthy girl of eleven years, had been stabbed in her

eye right on the upper corneo-sclerotic juncture, eighteen months ago. Only slight inflammation followed the injury, and good sight was preserved until, a year after, a kind of skin was observed to develop within the anterior chamber. It gradually increased, diminished the acuteness of vision, and, of late, would produce periodical attacks of pain in the eye. When I first saw the patient, eleven days ago, the eye-ball was somewhat red, and decidedly more tense than natural. On the upper part of the corneo-sclerotic margin was a cystoid, bluish elevation, in which the iris was engaged so as to form a pear-shaped pupil. A large transparent cyst filled four-fifths of the anterior chamber, leaving the lower part of the pupil and iris free. Visual power much reduced, one twenty-fifth of the normal. The lens and iris were pushed backward.

Since all the cases of cystic tumors of the iris recorded up to this day terminated badly, destroying invariably the organ affected, and, in some instances, even provoking sympathetic inflammation of the other, I thought an operation the only safeguard of this eye. It seemed and proved impossible to take away, by one operation, the whole cyst, together with that part of the iris with which it was connected. I succeeded in excising the inner portion of the iris, from which the tumor must have originated, and a considerable part of the cyst itself. The latter, of course, was emptied and collapsed. The eye now is in the best way of healing. There is not yet any refilling of the cyst, but I fear that it may happen.

The microscopic examination of the excised piece showed the iris in a state of considerable atrophy, its blood-vessels for the most part were scarce and replaced by connective tissue. Upon the iris was situated a single, and, in some places, seemingly double, layer of large flat epithelial cells with large nuclei. A subepithelial stratum of homogeneous tissue was not seen between the substance of the iris and the epithelial coat of the cyst. The free wall of the latter, however, presented some parallel and winding lines which, in fresh specimens, are often the only, but sure, signs of the presence of a hyaline membrane.

Several theories have been given with regard to the formation of cystic tumors of the iris: 1, expansion of pre-existing free spaces in the iris; 2, new formation of a cystic growth, of which Von Graefe relates the most remarkable example of a *dermoid cyst*, with hair and sebaceous glands; 3, sacculation of a portion of iris which became engaged in a corneal wound. The latter theory is advocated by Dr. Wecker of Paris, and I am happy to present to you a chromo-lithograph of a case of his just in the way of publication. This case is quite analogous to the one of which I am speaking.

Concerning the prognosis of the latter, I think the eye will be saved, since a second and even a third operation, if necessary, will not endanger it more than the first one, and will remove the cyst entirely. Vision too, and even accommodation, are likely to be preserved.

PISTOL-SHOT WOUND OF HEART.

Dr. Buck presented a specimen of pistol-shot wound of heart, and read the following history prepared by Dr. C. Washburn, House Surgeon to St. Luke's Hospital:

Edward Shroeder, 40, shoemaker, native of Germany, admitted to St. Luke's Hospital on May 28th. Patient had attempted suicide by shooting himself in four places. One ball entered over region of heart, but did not penetrate the thorax; after striking the rib it had lodged under the integument a short distance from its point of entrance. The second entered over lower lobe of right lung, and also glanced from the surface of a rib, inflicting no serious injury. The third entered the chest between the cartilages of the fourth and fifth ribs, perforating the pleura of right side, slightly wounding the lung. The fourth shot was fired into the mouth, perforating the soft palate, and lodging in the tissues near the bodies of the vertebræ.

On the day after admission, a friction sound was heard over nearly the whole surface of right lung. This rapidly disappeared, and all respiratory sounds were lost.

May 5th, patient died; nearly eight days after admission.

Post-mortem. The ball which entered the mouth was found lodged against the body of the third cervical vertebra.

The ball which entered between the fourth and fifth cartilages was found to have wounded the pleura and lung of right side, and then to have passed into the right auricle, through the inter-auricular septum, and out through the posterior wall of the left auricle. Its point of final lodgment could not be found. The openings in the auricles were found plugged with coagula, and on the outsides were firmly adherent to the pericardium. There existed pericarditis with abundant exudation of lymph, chiefly on the anterior portions of the sac. On the posterior side there was found, lying loose in the pericardium, a clot weighing about two ounces. The muscular tissue of the heart was stained everywhere by ecchymosis. The pleural cavity of right side was entirely filled with a bloody-colored serum, and thick, lymphy exudation covered the entire pleural surface.

MEDULLARY SARCOMA OF ANTRUM.

Dr. Howard presented fragmentary specimens of supposed medullary sarcoma of the antrum, removed by operation from a Scotchman, aged forty-two years. The patient presented himself at the clinic of the Long Island College Hospital, on the twentieth of March, with a large polypoid tumor of the right cheek, closing about one-third of the corresponding eye. He stated that, about seven months before, he first experienced a sensation of heaviness and pain in the right half of the nostril, which was soon after followed by weeping of the corresponding eye. Then succeeded a small tumor at the inferior margin of the lip, which gradually increased and spread over the side of the face. When the patient presented himself at the clinic, the tumor had the doughy feel and general appearance of a malignant growth. The nostril was occupied by what at first appeared to be a polypus, but which afterwards proved to be a mere proliferation from the disease of the cheek. As this interfered a good deal with the breathing, it was concluded to remove it as a temporary relief. A consultation was held soon afterwards, and a radical operation decided upon and performed. It was found necessary to remove the entire superior maxillary bone, including the palate bone and floor of the orbit back to the malar bone. There was considerable hæmorrhage, notwithstanding the common carotid was ligated in advance. The line of incision was made to correspond with those of expression. It was commenced at the inner canthus, carried along on the superior margin of the malar bone; then, commencing again at the first point, it was carried down the side of the nostril, making a curve precisely around the ala of the nose, in the natural depression, and then down the median line of the upper lip. The patient died on the following day, not having satisfactorily rallied from the operation.

The Society then went into executive session.

Correspondence.

NAVAL MEDICAL SERVICE.

U. S. Receiving Ship "Vermont,"
Navy Yard, New York, May 14, 1869.

To the Editor of the Medical Record.

Sir—In behalf of the medical corps of the navy, I beg that you will cause the following article to reappear in your journal.

It is gratifying to perceive that interest and sympathy in our cause is extending among the profession even beyond our shores.

I am, very respectfully, your obedient servant,

Delavan Bloodgood,
Surgeon, U. S. Navy.

* * * We learn that there is urgent necessity for reform in the medical department of the United States navy. "Cœlum non animum mutant qui trans mare currunt." Combatant officers, all the world over, appear to be unduly jealous of the prerogative of *command*, and they repress the civilians associated with them as a result of this unworthy feeling. It is evident that the matter is not viewed by them dispassionately, in consequence of the judgment being clouded by feeling. * * * The surgeons of the United States navy are dissatisfied, and, we think, justly so, with the treatment accorded them by their Government; for at the conclusion of the civil war they were left unrewarded for their exertions (which were acknowledged to be valuable), whilst promotion and appointments were bestowed on the executive class. Patriotic feelings induce surgeons to serve their country during periods of war; but in time of peace there is disinclination for service, arising out of similar causes in both the American and British navies—namely, neglect and repression of the civil element of the service. As an illustration of this statement it may be mentioned that, in 1864, when the demand for medical men was at its height, "one hundred and thirty-two physicians declined appointments in the medical department of the navy, alleging that they were willing to serve, as a matter of principle or duty, during the war, but desired no *permanent* place in the navy." This is an unmistakable *pronunciamento* of the profession against the regulations and usages under which doctors are constrained to live when employed in the sea-service; and since at the present time there are fifty vacancies, notwithstanding ample opportunity for admission, by means of an examining board in perpetual session, we may conclude that some radical change is necessary to maintain the efficiency of the United States navy in time of peace. Farragut, like Nelson and other worthies of the British navy, fully appreciates the claims of the surgeons to position and emolument; but inferior minds dread loss of dignity to themselves by the elevation of civilians. The surgeons ask for inspector grades similar to those existing in European navies, especially as the rank of admiral has been introduced into the United States navy; and they further ask that rank shall be substantive, and accompanied by privileges (always excepting *command*). It is a remarkable circumstance that the navy suffers much more than the army from a martinet spirit, which the executive officers term "*aristocratic*"—we should rather say, "*pseudo-aristocratic*." We wish our American brethren early and complete redress of their grievances; and we entertain no doubt of success, so long as they contend for it by the weapons now in use by them—viz., discussion and congressional action. The American Medical Association have accepted the cause as their own, thus showing identity of feeling and of purpose with the British Medical Association; and the event cannot fail to be fortunate.—*British Medical Journal.*

UTILIZING MEDICAL SCIENCE.

To the Editor of the Medical Record.

Sir—In your number of the 15th of March, you allude in your editorial, under the heading "Utilizing Medical Experience," to a plan presented by Dr. T. K. Chambers, of London, to the British Medical Association for keeping a record of cases.

Important as the subject is, I think it does not receive from the majority of practitioners the attention it deserves.

If comparatively easy in the hospital, and even in office practice, to keep a case book, it is not so for the general practitioner, whose time is so much taken up by the distances he has to ride over every day.

The object of this communication is to draw the attention of the profession to a little book edited by Messrs. Wood & Co., which enables the physician to keep a record of his cases in a very short time, on account of the systematic method with which the book is arranged.

Besides being conveniently carried in the coat pocket, so that a copy of each prescription given at the bedside can be kept in it, it contains tables so fixed, that the frequency of the pulse, the number of respirations, and the temperature, can be recorded from day to day without any trouble.

There are also tables for recording the state of the urine; the results given by auscultation and percussion; and the variations given from day to day by the æsthesiometer and the dynamometer.

In conclusion, I will state that it answers so perfectly the necessity you allude to, of utilizing medical experience without taking up much time, that I would advise every physician to give it a trial.

Respectfully,

H. Shiff, M.D.

New York, May 30, 1869.

A New Brilliant Gas Lamp.—Mr. J. S. Hogg, of Edinburgh (*London Med. Mirror*), has devised a brilliant gas lamp, the construction of which is as follows: Two tubes are employed, on the "Bunsen" lamp principle, one of which is of smaller diameter than the other; the smaller tube is placed within the larger, and one of the tubes is placed in communication with condensed gas or air, or a mixture of both. The mixture of gas and air is passed through a perforated plate of platina, or a tissue of platina wire-gauze, by which it is divided into numerous small jets. The minute jets pass through the interstices of the platina, and are ignited. The metal soon becomes incandescent, the supply of air being duly regulated, combustion is made perfect, flame disappears, and the platina or metal becomes a surface of intense light. Sometimes, instead of using a mixture of gas and air, compressed or condensed gas may be used by itself, and air at the ordinary pressure. Sometimes the gas and air may be heated before being burnt, to obtain a maximum effect.

Resignation of Prof. Lyon Playfair, M.P.—This eminent professor of chemistry intends to resign the Chair of Chemistry in the University of Edinburgh, at the close of the present session. There are already a number of candidates for the professorship.

New Instruments.

SUTURE PIN CONDUCTOR.

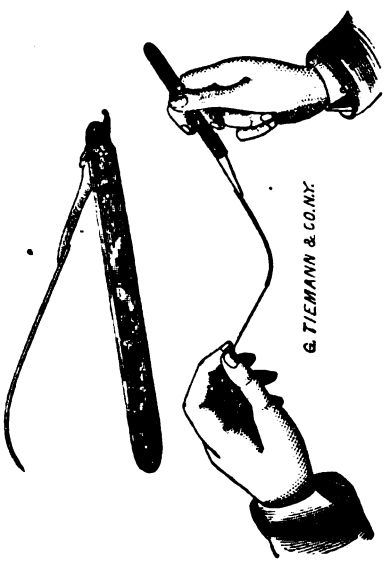
A NEW INSTRUMENT TO FACILITATE THE INSERTION OF PIN-SUTURES.

By GURDON BUCK, M.D.,

SURGEON TO NEW YORK HOSPITAL.

In operations upon the lips and face in which exact adjustment of the edges of the wound is especially important, so that the least conspicuous scar may follow, the figure-of-eight pin suture is, in the judgment of the author, preferable to any other suture. To facilitate the introduction of the pin, the instrument herewith described has been devised, and has proved so satisfactory in use that it is believed a good service will be rendered to practical surgery by making it known to the profession.

The instrument consists of a needle, of the slightness of an ordinary knitting needle, fixed on a handle and



slightly curved. It grows a little larger round for half an inch near its point. Its extremity is bevelled off to a sharp point on its concave side, and perforated lengthwise on its bevelled face like the stem of a hypodermic syringe, such as is in common use. The mode of using it is as follows: The edges of the wound intended to be brought into coaptation, having been traversed by the conductor guided by one hand, a pin held between the thumb and fingers of the other hand is engaged by its point in the perforated hole at the end of the conductor, and held steadily in place while the conductor is withdrawn and the pin made to follow it, which it does with unerring certainty. A soft iron or silver wire may be inserted in the same manner as the pin when it is intended to employ a wire suture.

The instrument is manufactured and kept for sale by Messrs. Geo. Tiemann & Co., No. 67 Chatham Street.

Chlorosis.—Ten drops of Fowler's solution and one-thirtieth grain of strychnia, ter die, are given by Professor W. A. Hammond in chlorosis.

Medical Items and News.

The Willard Asylum for the Insane.—This institution, which is intended as a refuge for the chronic insane poor belonging to the State, is situated at Ovid, N. Y., on a bluff overlooking the Seneca Lake. It is named in compliment to the late Dr. Sylvester D. Willard, of Albany, through whose instrumentality it was mainly established. Dr. John B. Chapin, of Brigham Hall, has been named as the Superintendent, and will enter upon his duties as soon as the asylum is ready for occupancy.

The New Hospital of the Sisters of the Poor, located on the corner of High and Nesbitt streets, Newark, N. J., was formally opened May 27, 1869. The fair in aid of the fund to build a more commodious structure, which was so recently held, has yielded a handsome return.

Brooklyn Eye and Ear Hospital.—Nearly 1,500 cases of disease of the eye and ear have been treated at the Eye and Ear Hospital during the first year of its existence, which closed on the 15th of April; 184 operations were performed and twenty persons previously blind were restored to useful vision. The total expense of the institution, which is free to the public, is less than $5,000. Twenty-five thousand dollars are now needed to erect a more suitable building for this institution and to defray the necessary expenses thereof for 1870. To further this latter end a meeting was held on Tuesday evening, at which $8,000 were subscribed by the gentlemen who were in attendance, S. B. Chittenden and H. B. Claflin giving $2,500 each towards the fund.

The Police Ambulance Corps.—The Superintendent of Police has established an ambulance corps, to be operated by his subordinates. Warden Brennan, of Bellevue Hospital, complains, however, that out of thirty-six persons sent to that institution since the issue of the order, only seven were found in need of hospital treatment.

Home for Incurables.—The anniversary of this institution was held at West Farms, Westchester county, June 11, 1869.

The third annual report was read by the pastor and superintendent, Rev. Washington Rodman. It appears that the institution has for three years received and provided for cases of cancer, chronic rheumatism, epilepsy, and paralysis. No distinction whatever is made on account of the religious denomination of applicants. The sole requisite for admission is incurable illness. The sick are provided for with the most careful solicitude, receive constant nursing care and the best medical attendance.

A refuge is afforded the incurable in destitute circumstances, who would otherwise be compelled to seek shelter in the almshouse. Those who could not be received into the public hospitals on account of the incurability of their ailments find an asylum here. The Home is, in fact, as the report expresses it, "a hospital of hospitals, those inadmissible to or rejected from other hospitals being the special objects of its care." Some of the important cases are of a character indescribable in any terms which could properly be addressed to the public ear. The number of patients in the Home at present is thirty; but the report urges that what is now done for them might be thoroughly done at a small increase of cost for twice that number, and that a speedy increase of patients to a maximum of

100, with corresponding accommodations, would at once realize the hopes of its managers and contributors. An appeal for the means of enlargement is addressed to the public. The number of patients remaining at date of last report was twenty-eight. Fourteen have been admitted since. One half the patients are altogether gratuitous, while the other half pay but six dollars of the ten which is the average expense of their weekly maintenance. An inspection of the institution is invited, which the managers say they feel sure will lead such as feel disposed to give, to a prompt and reasonable assistance in their works.

After the report had been read the Rev. Dr. Hall, of the Fifth avenue and Nineteenth street church, spoke eloquently and feelingly of those unhappy persons who are afflicted with incurable diseases, how miserable their state even when surrounded by friends, their ailments cared for and their wants supplied, and how infinitely more wretched were those destitute alike of friends and means of support. The tendency of incurable disease was to harden the heart, to lead to despair, disbelief in human sympathy, doubt of the mercy of God. This was undoubtedly due in some cases to a want of that careful solicitude which was so much required by such unfortunates, who were unusually sensitive to any appearance of flagging sympathy or attention. Christian duty, therefore, as well as the natural promptings of humanity, dictated a course of the utmost solicitude and kindness towards them, in order to restore their belief in the goodness of God through the benevolence of his creatures. The speaker made an eloquent appeal in behalf of the inmates of the Home. He was followed by the Rev. T. Gallaudet and Bishop Twing, who made brief addresses.

It appears from the report of the Treasurer, Mr. J. D. Vermilye, that the receipts for the year ending June 1, 1869, were $19,000; expenditures, $14,300; invested, $3,000, leaving a balance on hand of $1,600. The institution has $31,000 drawing interest.

The following managers were elected:—

Board of Managers.—Governor J. T. Hoffman, Wm. H. Guion, Wm. Alex. Smith, Wm. H. Appleton, Thomas Hall Faile, Henry F. Spaulding, William Niblo, Robert J. Livingston, E. A. Quintard, James A. Roosevelt, A. Newbold Morris, Rev. Washington Rodman, Rev. T. Gallaudet, D. D.; Rev. W. A. Muhlenberg, D. D.; Benj. H. Field, Geo. R. Jackson, John H. Pool, Martin E. Greene, William E. Curtis, Henry M. McLarin, Frederick de Peyster, LL.D., J. D. Vermilye, Benj. B. Sherman, John J. Crane.

Board of Clerical Managers.—Right Rev. H. Potter, D.D., D.C.L.; Rev. J. Cotton Smith, D. D.; Rev. I. H. Tuttle, D. D.; Rev. Heman Dyer, D. D.; Rev. S. H. Tyng, Jr.; Rev. A. H. Vinton, D. D.; Rev. H. C. Potter, D. D.; Rev. R. W. Harris, D. D.; Rev. T. M. Peters, D. D.; Rev. W. T. Wilson, D. D.; Rev. Morgan Dix, D. D.; Rev. William F. Morgan, D. D.; Rev. H. E. Montgomery, D. D.; Rev. E. A. Washburn, D. D.; Rev. C. D. Jackson, D. D.; Rev. Uriah F. Tracy, Rev. A. H. Gesner, Rev. W. T. Sabine.

KENTUCKY SCHOOL OF MEDICINE, LOUISVILLE, KY.—At a meeting of the Faculty of this School May 13th, the following preamble and resolution were unanimously adopted:

WHEREAS, The medical colleges of the United States have, hitherto, in vain sought for an expression of the wish of the American Medical Profession in regard to the amount of fees proper for a single official course of collegiate lectures; and

WHEREAS, The American Medical Association did, by a vote conspicuously unanimous, decide on the 6th of May, 1869, that $120 should be accepted as the MINIMUM amount to be charged for such a course of lectures; and

WHEREAS, This vote is morally and honorably binding upon all who personally or by delegated authority entered into it; and

WHEREAS, The Faculty of the Kentucky School of Medicine, in common with all reputable members of the medical profession, accepts the decisions of the American Medical Association as representing, through its delegated organizations, the sentiment and desire of the great body of American physicians;

Be it hereby resolved, That the Faculty of the Kentucky School of Medicine acknowledges this officially expressed wish of the Association as its guide in this relation, and that it will hereafter charge $120 for each official course of its collegiate lectures.

L. J. FRAZER, M.D., *Dean.*

CONSUMPTION IN MASSACHUSETTS.—From the Mass. 26th Registration Report, we learn that consumption caused the death of 4,362 persons in 1867; of which 1,974 (45.2 per cent.) were males, and 2,388 (54.8 per cent.) were females.

This number is 233 less than in 1866, and absolutely less than in any year of the past fifteen, with one exception.

DR. LIONEL BEALE.—This distinguished physiologist and microscopist has resigned the professorship of Physiology in King's College, London.

A NEW GALVANIC BATTERY.—The invention of a new galvanic battery is noted in the *London Med. Mirror.* It consists in a combination of metallic bars of dissimilar metals, so arranged together as to constitute a very compact, yet powerful and constant pile, without cloths or any porous substance essential in the construction of the voltaic pile, and without caustic acids as employed in galvanic batteries. These several bars are made of two or more metals, and fixed in a regular alternating series; as, for example, one bar of zinc or zinc magnesium is soldered at its ends to the next bar as its fellow, which bar may be of copper, brass, or yellow metal, and then this pair is insulated from the next pair by rubber, glass, or gutta-percha, and so on through the whole series contained in the battery frame-holder.

UNIVERSITY OF HALLE.—This celebrated school was founded in 1694, and now numbers some seven hundred students in all its departments. The present Professor of Obstetrics is Oldhausen.

MORTALITY AMONG INFANTS.—A committee has been appointed by the French Government, to institute an inquiry into the causes of the excessive mortality among new-born children. The committee numbers two senators, three deputies, three councillors of state, one administrator, one inspector-general of the Paris charities, one inspector of the police, one member of the French Academy, one member of the Municipal Council, and only two medical men.

NEW USE OF IODIDE OF POTASSIUM.—Dr. A. de Beaufort (*Medical Mirror*), reflecting that iodide of potassium is freely eliminated in the tears and uterine mucus, tried it in free doses in cases of the lachrymal tube, and also in chronic metritis. His success was most decided.

GONORRHŒAL SCIATICA.—M. Fournier recently brought under the notice of the Paris Hospital Medical Society the subject of "Gonorrhœal Sciatica," which he believes to be a real variety of this painful affection, and not a mere coexistence of sciatica in a subject suffering from gonorrhœa.—*New York Med. Journal.*

A Plea for Counter-Irritation.—Dr. R. B. Painter, in the *Lancet* of April 24, takes up the vexed question of the utility of counter-irritation, and maintains that counter irritants may prove very potent agencies even where no *direct* nerve connexion can be demonstrated. He says, "It may be by stimulating the nerves, the capillaries, or the absorbents; or it may be by revulsion; or by producing such an impression in some way on nutrition as to break by a wrench the continuity of a morbid functional action, whether nervous, vascular, or chemical. To illustrate this, let us take the case of a chronically inflamed part with its enlarged and weakened capillaries, and which if connected with a gland would cause it to constantly pour out a half-elaborated secretion, and continuing from continuity or habit. Put a blister or other irritant on any part of the body—but if on a part supplied by the same group of nerves as the part affected, perhaps so much the better, —an impulse will be conveyed to the spinal cord or sympathetic ganglia which will be reflected on the diseased part, and the bad habit will be broken. I say this may be so; for do we not know what a trifle will change or divert the operation of nervous action in the brain, the heart, or other organs? How suddenly a thought, a habit, a rhythm, or a secretion may be altered by a new impression. If this be so, may we not argue, by analogy, that if a mental or other habit can be changed by an idea or a new impression—a change, as in fear, anger, or joy, influencing the whole body and its functions for good or for ill,—why may not an external impression on a spinal or sympathetic nerve influence the whole system also for good or for ill? In the one case nerve function is affected from within outwards, and in the other the reverse. Is not the body a great whole, and are not its functions and sympathies closely bound together? Where does consciousness cease? A mental habit may be changed by a new impression, and why may not a habit of organic life be changed also by some other impression? That organic functions can be made to feel the force of habit we know by numerous examples, but most prominently so by the stomach. A diseased action, once set up, may continue from habit, just as a clock may still go even though in wrong beat; yet a very slight alteration will set all right. So, it appears to me, it is quite possible a blister, a seton, a croton liniment, or a mustard poultice, besides its more subtle action on the nerves, the capillaries, the absorbents, or the chemistry of nutrition, separately or collectively, may have a sudden effect on the whole body in altering function, as hot brandy-and-water may cure a headache or a colic by its impulsion, or as a sudden blow on the back may violently break the most subtle mental operations. In the one case *involuntary*, and in the other *voluntary*, attention is arrested by the stimulus from what had previously occupied it, and force is directed into a new channel, or equalized."

Fracture of Skull; Fracture and Dislocation of Humerus of Left Arm, and Fracture and Dislocation of Right.—C. B. Frazer, M.D., of East Saginaw, Mich. (*Am. Jour. Med. Sciences*), was summoned on October 11, 1867, to a lad of 15 years, who had been caught by the crank of a balance-wheel in a shingle mill, and was taken up perfectly insensible. The following injuries were found: An incised wound of the head, about three inches in length, commencing about the middle of the superior portion of the temporal bone, and extending downward, backward, and upward, forming a semi-circular flap about an inch and an eighth at the widest portion; another fracture was found near the parietal eminence; and at the junction of the parietal bones with the occipital, a bloody tumor had formed, about two inches in diameter at the base. Extremities: A fracture of the external condyle of right humerus; fracture of coronoid process of ulna, and a backward dislocation of elbow; the annular ligament was ruptured, and a dislocation of radius from ulna. Left arm: a downward dislocation of humerus, and upon rotating it after reduction, crepitation was very perceptible at the joint, showing a fracture of the anatomical neck. Inferior extremities were somewhat contused, but not fractured.

Chloroform was administered, and he proceeded to reduce the fractures and dislocations first. The right arm, after reduction, was placed upon an angular splint. The left was secured to the side by a body bandage.

The skull was next trephined, after having made a crucial incision, and dissected up the flaps. The depressed fragment, half an inch long, and three-eighths of an inch wide, was removed with a pair of forceps. The dura mater was entire. The wounds were now closed, and, strange as it may appear, not one particle of suppuration occurred in either of them. They all closed by "immediate union."

At the expiration of the second week the body bandage was removed, and the arm allowed to rest beside him in bed.

In about four weeks he visited the office of Dr. F. for further treatment, and was there as often as once a day, up to Nov. 25, 1867, when very nearly complete movements of the elbow-joint were secured, by cold douches, passive motions, and friction. The shoulder-joint is, to all appearance, as natural as before the accident.

A New Method for Securing Divided Vessels.—Frederic D. Lente, M.D., of Cold Spring, N. Y. (*Am. Journal Med. Sciences*), recommends the silver wire for securing divided arteries, and makes the application as follows: Cut off a length of silver wire, say three inches—less will do, however, for small arteries; give it a sharp bend in the middle, then one or two twists as near the bend as possible. This forms the ligature. Secure the twisted end of the ligature in a pair of spring or catch forceps. Draw out the vessel to be ligated, or, if a small one, the tissue in which it is, with a tenaculum or forceps, in the usual manner; let an assistant apply the ligature against the vessel at the point where the two legs diverge from the twist; then the surgeon takes hold of the two ends and gives as sharp a twist on the vessel as possible, and then secures the hold by two or three half turns. The silver wire is so soft and pliable that but very few turns are necessary to prevent slipping. These ligatures may be applied with great facility, after a little practice. He uses the ordinary *suture* wire for the smaller arteries, and No. 26 for large arteries. Having twisted the wire, the end is cut off with ordinary scissors, within two or three turns of the artery; the other end, if not too long, may be left, as two sharp ends to the ligature would be avoided. This leaves a very minute quantity of metal around each vessel, and after a dozen such ligatures have been applied, it becomes somewhat difficult, in the course of half an hour, to find one of them, except by searching carefully. They soon imbed themselves in the tissues, and disappear from sight. An important object, in substituting silver wire for silk in ligating arteries divided in operations, is to secure a better chance for "union by first intention." The danger of death from an open, suppurating wound, with its constant liability to erysipelas, pyæmia, exhaustive discharges, and a long train of evils, is avoided.

Homœopathy in France.—The Paris correspondent

of the *Lancet* gives the following account of a new medical journal:—A new, cheap homœopathic periodical has just been published in France: it is intended to find its way into the hands of every artisan and laborer, and modestly styles itself *Le Médecin du Peuple.* Upon what basis do you think it has founded its hope of success? It offers to every subscriber a medicine chest containing the twelve symbolic remedies which are to preserve him from every possible disease, or to cure him of every possible malady, if, perchance, he is already possessed of any such inconvenience. Further, it presents him with a homœopathic handbook, by means of which he will become his own doctor. But this is not all: to crown the treat, the homœopathic gentlemen who conduct the journal promise to the happy individual who will pay a subscription a magnificent *clyso-pompe* in the very last style, and with all the refinements which modern ingenuity has added to that useful instrument. With his guide-book in one hand, his medicine-chest in the other, and his *clyso-pompe* in his bosom, the subscriber will go undaunted and unscathed on his way through life, fearless of "the thousand ills that flesh is heir to," and which still demand the deep and assiduous study of too conscientious allopaths.

A Monster Induction Coil.—Professor Pepper has produced the most powerful induction coil ever seen, and the results must be of lasting importance. Till now a coil fifteen inches long and four in diameter was called large. That would light up vacuum tubes, and give a spark of six or seven inches. Professor Pepper's new coil is a "monster," nine feet ten inches long and two in diameter. It gives a spark of twenty-nine inches, perforates plate-glass five inches thick, and charges a Leyden battery, forty feet square, by three breaks of contact.

The core of this new coil is of soft iron, formed by a bundle of straight wires, each five feet in length and ·0625 of an inch in diameter. The diameter of the combined wires is four inches, and the weight of the core is 123 lbs. The primary coil is of copper wire of the highest conductivity, and weighs 145 lbs. The diameter of this wire is ·0925 of an inch, and its length is 3,770 yards. It is wound round with cotton, and makes 6,000 revolutions around the iron core. The secondary wire is 150 miles in length, and ·015 of an inch in diameter. It is covered with silk, and is wound into an outer coil 50 inches in length. The primary wire is insulated from the secondary by an ebonite tube half an inch in thickness, and the whole coil is enclosed in another ebonite tube and mounted upon substantial supports also covered with ebonite. The galvanic current for the primary coil is furnished by a Bunsen's battery of forty cells.—*Med. Press and Circular.*

Menstruation in Different Races.—An examination of 100 Hebrew women, of 200 Slavonic peasant women, of 70 noblewomen in a very circumscribed district, gives the following results: The peasant women menstruate at 15 years, 10 months, 9 days; the Jewish at 14 years, 3 months, 25 days; the women of nobility at 13 years, 1 month, 5 days. The Jewish and peasant women live under almost the same conditions, the former even being worse off in that respect. The double influence of wealth in the daughters of noblemen, and of the characteristic fecundity and the particular precocity of the Semitic race, can be easily deduced from statistics.—*Am. Jour. of Obstetrics.*

Increase of Lunacy in France.—The attention of the Paris Academy has been called to this important subject by M. Lunier, who, being dissatisfied with the official statistics, had entered on a revision of them, which he submitted to the Academy. He found by his first observation that it appeared that the number of them had been increased five-fold in the interval between 1835 and 1869. In 1835 there were 16,000, or one in 2,016 of the population, and in 1869 the proportion had increased to 93,000, or 1 in 412. M. Lunier attributed this apparent increase to an alteration in the method of taking the census, and to the annexation of Savoy, which brought a great number of Cretins and idiots into the calculation.—*Med. Press and Circular.*

Amputation of Diseased Lung.—Dr. Downing proposed, in the *Med. Press and Circular*, amputation of diseased lung in the early stage of phthisis. He says: "The plan I would suggest is this. In the cases and under the circumstances previously indicated, the patient being seated in a well-warmed room, let a hollow needle, of moderate size and with a valve at the outer extremity, the same being now closed, be inserted between two of the ribs on the side diseased, so as to reach the bag of the pleura. When all agitation has subsided, the valve may be opened and a small portion of warm air admitted into the cavity at each act of inspiration. Then let the stop-cock be turned again. Of course, in accordance with this ingress, there will be a corresponding collapse of the lung, and it is to be hoped, expectoration or ejection in some way of the pus, and other noxious fluids contained therein. This elimination should be encouraged as much as possible. After a time, to be determined by the condition of the patient, more air could be admitted, but always in a slow, cautious, and guarded manner, until the lung is completely emptied of its contents and firmly contracted against the dorsal vertebræ. Here it would be no longer a source of irritation and debility. In this quiet, inactive condition the vomicæ would probably contract and cicatrize; at all events, they would be placed in the most favorable condition to do so. The other lung would maintain the vital functions of aeration and calorifaction."

The Milk Fungus.—If we examine under the microscope the superficial layers of cream, we perceive, amongst myriads of globules of milk and of fat, small elongated bodies, accompanied generally by finely punctated masses, such as are found usually in putrefying substances. These are detected in greater numbers at the end of about fifteen or twenty-four hours in summer, and of three days in winter, but *always before the milk manifests any sour taste.* These corpuscles are the spores of a fungus.

This fungus is found not only in milk, but in butter and cheese; even in fresh butter the fungus is met with. The researches of V. Hessling, as reported in *Virchow's Archiv*, are of great importance in regard to alimentary hygiene, inasmuch as milk and its products are the aliments of vastly the greatest consumption. It is essential to observe that the fungus exists even when the milk does not show the slightest sour taste. The author believes that many of the disturbances of digestion are attributable to the existence of this fungus. He directs attention to the matter, especially in its bearing on the dietary of infants, of which milk is almost the exclusive basis, and in whom intestinal irritation is so frequent and so serious in its degree. The facts published by Dr. Falger, in another number of the *Archiv*, seem to corroborate the opinions of V. Hessling. He has observed that severe intestinal symptoms have at once ceased in infants under the adoption of some very simple precautions, which he details as follows:—

To give the milk as fresh as possible.—In the inter-

val between the milking and the administration of the milk to the child, to keep it in a bottle completely filled and tightly corked so as to exclude the air; and, lastly, to preserve as nearly as possible the natural temperature of the milk as it comes from the cow.—*Medical Press and Circular.*

An English Female applies for the Degree of Doctor of Medicine of Paris.—We learn from the *London Medical Mirror* that Miss Garrett, a licentiate of the Apothecaries' Society of London, has been admitted, by special order of the French Minister of Instruction, to the first of the series of examinations for the degree of Doctor of Medicine of Paris, without having complied with the usual conditions of residence, &c. The examination was public, and the theatre was crowded. She passed an excellent examination, and was complimented by M. Broca, the president of the examiners. Three ladies are now in the Paris schools, pursuing medical studies in common with the male students of the medical classes.

Guthrie's Discoveries.—Surgery is indebted to Mr. Guthrie for the method of treating wounded arteries. After the battle of Albuera, experience led him to directly opposite conclusions regarding the management of these injuries than those derivable from the writings of Hunter, but the correctness of which have since been acknowledged—namely, the necessity of securing both extremities in case of the vessel being opened. It was to his experience, during the Peninsular war, that we owe our knowledge of the extent to which collateral circulation may support the life of a limb, the main vessel of which has been destroyed. After the battle of Waterloo he amputated the lower limb of a French soldier at the hip-joint, without any other pressure being made upon the main artery than that effected by fingers.—*London Medical Mirror.*

Disease of the Gums.—A writer in the *Lancet* states that the teeth should be washed night and morning by a moderately small and soft brush. After the morning ablution, pour on a second tooth-brush, slightly damped, a little of the following lotion, and apply it to the affected parts: Carbolic acid, one scruple; rectified spirits of wine, two drachms; distilled water, six ounces. By its use suppuration is kept down, and the gums soon get firmer and less tender.

Weight of the Brain.—At a meeting of the Vienna Society for Psychiatria and Forensic Psychology, Prosector Dr. Meynert gave some statistics on the weight of the brain. His deductions from the weight of 351 brains, as well as those of Parchappe from 284, prove that the influence of psychoses is much greater than age on the weight of this organ. For example, during the physiologically blooming age of the brain's weight (30—40 years in males), a mean of only 1,317 grammes was given, because brains of the latter stages of psychoses were mingled with the others weighed; on the other hand, in the primary stage of psychoses, without regard to age, a mean of 1,329 grammes was given for conditions of depression and 1,359 for mania. Furthermore, the reduction of weight was always equal to the duration of the disease. It was also found to depend upon the intensity of the latter, as paralytic idiocy was characterized by a great reduction of weight. Meynert also found that insane brains had more cerebellum, proportionally, than sane; and that insane females had more than insane males.

Modern Homœopathy.—From the *London Monthly Homœopathic Review* for June, 1868, we learn that Lord Ebury gave vent to a feeling of regret that the report of the London Homœopathic Hospital did not contain evidence of a greater development of the objects of the institution. The number of patients was not very large, and the clinical lectures had been given up, "owing to the attendance being so scanty as greatly to discourage the lecturers." In the London Homœopathic Hospital, in which the cases are not of so serious a character as one is accustomed to see under treatment in hospital, black wash is applied to syphilitic sores, and ½-grain doses of mercury given internally. Cases of glandular enlargement in the neck were treated with tincture of iodine painted on externally. For cases of continued sleeplessness 1.48 of a grain of acetate of morphia was given every fifteen minutes. The Hospital physicians repudiated, one and all, the fallacies and absurdities of Hahnemann about infinitesimal doses and dilutions.

Remarkable Case of Prostatic Calculi.—Dr. Paulicky gives an account of a prostate removed from the body of an invalid of the Hamburg garrison, 73 years of age, which felt exactly like a gall-bladder distended with calculi. The urethra was, in fact, surrounded by a large smooth-walled, sinuous cavity, which contained the stones. It occupied almost all the lower half of the organ, only about two lines in thickness of the parenchyma remaining; and the calculi, instead of being imbedded in this, were contained in the cavity so formed close in contact with each other. The upper half of the gland retained its ordinary appearance, containing only a few concretions. There were counted two hundred and forty calculi, the largest one measuring six lines in diameter, and weighing three days afterwards 2.7 grammes. Two others were nearly as large, and eleven others had a diameter of two lines. The great bulk of the calculi varied in size between millet-seed and lentils. There were also numerous little stones scarcely recognizable by the naked eye. In form and appearance these calculi much resembled gall-stones, but differed from them by their great hardness. The largest stone mentioned above had perforated the urethra.—*Wien. Med. Woch.*

India-Rubber Sponge.—The new india-rubber sponge is coming into use in the London hospitals for pads for the prevention of bed sores.

Senator Claude Bernard.—The Emperor has just paid a crowning tribute to the scientific glory of Claude Bernard by calling him to the Senate. There the great French physiologist will take his seat beside Nélaton the surgeon and Dumas the chemist, both former Professors at the Faculty. The Senate will thus include three medical men without mentioning Dr. Conneau. Only a short time ago Claude Bernard had the exceptional honor of being elected at the French Academy, a society which is composed of only forty members, consisting of the most distinguished literary characters of the day, and which is invested with a peculiar prestige in the eyes of the French.

Pharmacy in Italy.—From an official report of the Italian Minister of the Interior, it appears that there are at present 10,005 *pharmaciens* in the kingdom, that is one for 2,426 inhabitants. The republic of St. Marin, on the contrary, which contains 8,400 inhabitants, has only two apothecaries. The Pontifical dominions, estimated at 800,000 inhabitants, have 300 *pharmaciens*, that is 10·307 for the whole peninsula, or one to 2,433 persons.

Medical Disturbance in Russia.—Serious disturbances have lately taken place in St. Petersburg, at the Medical Academy, and spread to the University and

Technological Institution, as well as to the University of Moscow, in consequence of which the lectures have been suspended in some of these establishments. The cause of these disturbances was a quarrel between the medical students and the secretary of the Academy.

TRANSVERSE FRACTURE OF PATELLA.—M. Sistach is of opinion that position and immobility for a sufficient length of time are quite sufficient to effect a good cure, without any use of the compressive bandages and apparatus so generally used, which are liable to do harm rather than good, preventing the nutrition of the limb, and specially the formation of the new material which is to unite the divided ends of the tendon, causing atrophy of the limb, and local scurvy.—*Gaz. Med. de Paris.*

THE SIZE OF NAPOLEON'S HEAD.—According to Col. Lehmanowski, who fought over one hundred battles under Napoleon, the size around the head of the Emperor Napoleon was fully 23½ inches, being the same measurement as the heads of Henry Clay, John Quincy Adams, William Pitt, and Wellington.

THE SIAMESE TWINS.—According to the London *Medical Times and Gazette*, the distinguished surgeons of London have wisely declined, in the case of the Siamese twins, to sever their bond of union.

TRAUMATIC CATARACTS.—Von Graefe originated the traction operation in hard traumatic cataracts; and it has been extended to other cataracts by Dr. Schuft.

DEATH'S DOINGS.—We are called upon to make the painful announcement of the death of the following distinguished members of the profession: Drs. Thomas Cock of New York, Alden March of Albany, and Dr. H. N. Whittlesey, late of Randall's Island, New York. Obituary notices of each of these gentlemen will appear in our next issue.

THE FIRST PUNCTURER OF THE EYE-BALL.—This operation was first practised by Dr. Whyte, of Manchester, in 1802.

THE INDICATION OF THE ELECTRICAL CURRENT OF ANIMALS.—Galvani indicated and put in evidence for the first time, the existence of the proper current of animals.

MONSTROSITIES.—O. C. Gibbs, of Frewsburg, N. Y. (*Lancet and Observer*) reports the birth of a monstrosity characterized by the absence of cranial and spinal bones, and of the entire integument. The liver, heart, and stomach were exposed. The brain, contained in its membranes, hung down the back.

A double-headed male child was shown to the members of the St. Louis Med. Society, a few weeks ago, by Dr. Steele. This monstrosity had two entire and separate vertebral columns; two sacra; a single pelvis; two legs; three arms; one rectum; one anus; two pairs of lungs and two hearts normal; two kidneys; one bladder and one penis.—*Med. Archives.*

SCARLET FEVER IN LONDON.—Scarlet fever has destroyed six hundred and eighty-seven lives in the metropolis during the last thirteen weeks—nearly as many as fell victims to that disease in the first twenty-six weeks of last year.—*Lancet*, April 3.

PHENIC ACID IN SYPHILIS.—The application to syphilitic ulcers of phenic acid in water—five parts to one hundred—is recommended by an Italian physician. The deuto-phosphate of mercury, one grain a day, continued for two months, in tertiary syphilis, is advocated by Dr. Fidele de Fieri.

ANOTHER CASE OF OVARIOTOMY.—Dr. Washington L. Atlee, of Philadelphia, lately removed an ovarian tumor from a married lady, residing in Baltimore, Md. The patient is convalescing. The tumor was a multilocular cyst, and, with its contents, weighed over forty pounds.

THE PERIOD FOR WOMEN TO MARRY.—M. A. Raciborski, of Paris, believes that the proper time for women to marry is between the 20th and 24th years.

TORSION OF ARTERIES.—Prof. Humphrey, of Cambridge, has recently abandoned the use of acupressure, of which method he was a follower, and has used *torsion* in all cases exclusively, meeting always with the best results, even in amputations of the thigh or leg. He admits that far more time and skill are necessary for torsion than for ligation.

A PROLIFIC CHILD-BEARER.—Dr. A. C. White, Springfield, Tenn. (*Richmond and Louisville Med. Jour.*), publishes the case of a negress, only thirty-four years old, who has given birth to twenty-four children

A CHILD BORN WITHOUT CALVARIA OR ENCEPHALON.—Dr. H. Smith, Kirklin, Ind. (*The West. Jour. Med.*), aludes to the following singular monstrosity which came under his observation: A German woman, aged thirty, gave birth to a healthy male child, and within twenty minutes more a female, breech presenting, was delivered, still-born, and without cranium or brain. The parietal bones were absent; the occipital and frontal were gone, except the inferior part of the former and orbital plates of the latter. The superior portion of the temporal bones was also wanting. The eyes were quite prominent; but the optic nerves dwindled to a mere shred before decussating. Child of medium size.

TREATMENT OF TINEA TONSURANS,—Dr. Pietro Grilli has found Helmerich's ointment very efficacious in this affection. He states that he copied the practice from Prof. Bini, who discovered the efficacy of this sulphuro-alkaline ointment in destroying the tricophiton tonsurans, by using it in females who were suffering from the latter disease and itch.

MANAGEMENT OF HYSTERIA.—Dr. James T. Newman, of Chicago, applies the electro-magnetic battery in cases of hysteria.

RIGOLLOT'S MUSTARD-LEAVES.—These "mustard-leaves" will probably become as popular in this country with the profession as in London and Paris. This preparation consists of dry mustard adherent to a porous material, which can be cut off in any shape, and on being immersed for a few seconds in water is ready for use. It is used in the Paris hospitals, and is supplied to the imperial navy of France.

SILICATED HYDROGEN.—Mr. Freidel has discovered that this gas is entirely decomposed by the electric spark, giving rise in the eudiometer to a shower of amorphous silicum of a brown color.

PRESERVATION OF HYDRIODIC ACID.—This acid is kept and properly preserved in a white state in the presence of turnings of copper. The iodide of copper, which is slowly formed, is not dissolved by the acid. Hydriodic acid, which has become brown-colored, will be restored to its pure color when shaken up with copper turnings.—*Deutsche Industrie Zeitung.*

New Publications.

A TREATISE ON THE DISEASES OF THE EYE. By J. SOELBERG WELLS, Prof. of Ophthalmology in King's College, London. First American Edition, with additions, etc. Phila.: Henry C. Lea, 1869.

Original Communications.

STRANGULATED INGUINAL INTERSTITIAL HERNIA.

TESTICLE RETAINED IN INGUINAL CANAL—OPERATION—DEATH.

By GURDON BUCK, M.D.,

SURGEON TO NEW YORK HOSPITAL AND ST. LUKE'S HOSPITAL, N. Y.

I VISITED H. VAN H., a carpenter, 35 years of age, of good constitution and regular habits, on 30th of April, 1869, at 3 o'clock P.M., at Harlem, and found him suffering from an old hernia that had become strangulated the night before.

The abdomen, which was tumid, presented a conspicuous, bulging tumor in the right iliac region, above and in close proximity to Poupart's ligament; its long axis being parallel and coextensive with it. It was elastic, dull on percussion, not tender on pressure; the skin covering it was supple and unchanged in color. The scrotum contained only the left testis. The right could not be identified, nor could the patient himself ever determine its location. The external abdominal ring could be distinctly defined, small in size and unoccupied by the spermatic cord. Patient had been employed the day previous at a hotel in putting up window awnings; had eaten a hearty supper in the evening, after which he felt rather bloated. On retiring to bed, his hernia, for which he had habitually worn a truss, was reducible as usual. At about 10 o'clock, after sleeping about 1½ hours, waked with a violent pain in the abdomen, particularly in the right iliac region: the hernial tumor had very much increased in size, and could no longer be reduced. He suffered excruciating pain, and vomited frequently through the night. Towards morning obtained relief from tobacco poultices. The vomiting ceased, and has not recurred since 10 o'clock this forenoon. He is now free from pain and abdominal tenderness, pulse is 62, temperature natural, no fæcal evacuation since the day before.

DIAGNOSIS. The pre-existence of a reducible hernia in this case could not be doubted. Patient had often reduced it with a gurgling noise, and was accustomed to apply the pad of his truss over the internal abdominal ring. The hernia had never descended into the scrotum nor passed down through the external abdominal ring, owing to the contracted size of the ring and the absence of the spermatic cord, which serves as a conductor to the hernia in its descent. The tumor in this case was confined within the inguinal canal, which it had distended and enlarged to an extreme degree, chiefly by crowding the fascia transversalis toward the peritoneal cavity. The seat of strangulation was at the internal abdominal ring, through which the hernial mass had escaped from the cavity of the abdomen. Symptoms of strangulation being in abeyance, and there being no symptoms of peritonitis, it was hoped that the action of the bowels by a cathartic aided by emollient applications to the tumor, might disengage the imprisoned bowel, and relieve the strangulation without resorting to an operation. With this view a pill of Calomel grijss was ordered every two hours and a warm soap-suds enema every three hours, also warm flaxseed-meal poultices to the abdomen.

May 1. At 3 P.M., patient has had copious fæcal evacuations, after the enemata last evening, and had passed a quiet night; but at 6 o'clock this morning was again seized with violent abdominal pain and vomiting. The hernial tumor appears to have become larger and more salient, and is tender on pressure at its lower part; pulse 64. Though symptoms of strangulation have again intermitted, it was not thought safe to allow this state of things to continue longer: an operation was therefore at once resorted to, with the aid of etherisation. Dr. Neil, the attending physician, and Drs. Weir and Beckman were present.

OPERATION. The tendon of the obliquus externus muscle was first exposed by an incision four inches long, extending one finger's breadth above and parallel with Poupart's ligament. It was found very tense and bulging. In dividing it upon a grooved director the subjacent sac was unintentionally punctured and bloody serum escaped. The inferior portions of the obliquus internus and cremaster muscles, now brought to view, were found distended, and their fibres attenuated and separated from each other. On dividing these muscles and the subjacent sac a gush of bloody serum took place, and the hernia was exposed to view. It consisted of small intestine of a bright red color, and floating omentum. By exploring with the forefinger an opening was found through which the hernia had protruded. It was circular in form, with a well defined tense edge, and allowed the finger to pass through it. The finger could also be swept round the protruding parts outside of the opening, and a membranous partition (fascia transversalis) could be distinguished, shutting them off from the abdominal cavity. By hooking the finger in the ring it was brought out into view and the constricting edge divided under inspection. Reduction was now effected by returning first the intestine, then the floating omentum, and finally a somewhat compact portion of omentum which probably had habitually remained outside of the internal ring. After reduction the finger could be swept freely in contact with the parietal peritoneal surface inside of the ring. The testis, of normal size and condition, was now recognized in the wound external to the ring.

The edges of the tendon of the external oblique muscle were first secured by sutures, the ends of which were left long and brought out through the skin; the wound of the skin was then closed by ordinary interrupted sutures supported by strips of adhesive plaster. A compress and spica bandage completed the dressing. Ordered sol. s. morph. Magendie gutt. x., every 2 or 3 hours.

May 2, 1 o'clock P.M. Patient very comfortable, no pain, no vomiting, no febrile heat, pulse 90, somnolent. To continue sol. s. morph. every 4 hours.

May 3, 8 o'clock P.M. Since taking ol. ricini at 10 o'clock this morning has vomited repeatedly and suffered from nausea and acid stomach; complains also of abdominal distension. No tenderness on pressure, except in moderate degree over right iliac region. Bowels have been freely evacuated after two blue pills and laxative enemata. Pulse 80, no chill, no heat; ordered s.s. morph. gutt. x., and aquæ calc. ℥ ss. with carb. acid water every half hour. Wound looking well; changed bandage.

May 4. Continues to do well; removed 2 or 3 sutures.

May 9. I found patient progressing favorably, the wound reduced in size and suppurating moderately: every thing seemed to indicate a favorable issue. Subsequent to this my last visit, however, an unfavorable change took place, and to my great surprise and disappointment he died on the 13th May, the fourteenth day after the occurrence of strangulation.

A post-mortem examination was made on the 15th May, and revealed the existence of general peritonitis. The intestines were everywhere adherent to each other, and inclosed in their interspaces collections of

sero-purulent fluid. The parts constituting the hernia remained reduced, and were adherent to each other, and to the abdominal parietes in the right iliac region: the testis was adherent on the inside of the ring. Membranous exudation covered the viscera everywhere, but in greater quantity in and around the iliac fossa.

Remarks: Gouraud (Mem. de l'Acad. Royale de Med. T. V., 1836) has admirably described this form of hernia under the title of "Hernie Inguino-Interstitielle," which the author has adopted as very appropriately distinguishing it. To him may be conceded the credit of having more accurately described this variety than his predecessors.

The anatomical relations of this hernia, as deduced from the case above narrated, correspond in every particular to the description given by Gouraud in his excellent memoir. It is as follows: The superior orifice of the inguinal canal, or the internal abdominal ring, was the seat of strangulation. The hernia itself was entirely confined within the inguinal canal, which was very much enlarged by the distension of its walls in every direction; it had not traversed the inferior orifice of the canal or external abdominal ring. The longest diameter of the hernial tumor corresponded to the long axis of the inguinal canal, and was parallel with Poupart's ligament. Anteriorly the tumor was in relation with the tendon of the external oblique muscle, and scattered muscular fibres of the internal oblique. Posteriorly with the fascia transversalis. Superiorly with the lower bundles of the transversalis abdominis muscle. Interiorly with the guttered floor of Poupart's ligament and the spermatic cord.

CONTRIBUTIONS TO THE CLINICAL HISTORY OF SURGICAL AFFECTIONS OF THE LARYNX.

By DR. J. SOLIS COHEN,

OF PHILADELPHIA.

No. 1.

MORBID GROWTHS IN THE LARYNX.

Fibrous Tumor of Vocal Cord—Removal by Laryngotomy.—W. B—r, æt. 26, a native of Prussia, and a resident in the upper section of the city of Philadelphia; a man of medium stature, spare habit, and light complexion, and by occupation a ladies' shoemaker; applied to me on May 1st, 1867, at the recommendation of Dr. R. W. Hargadine, to be treated for a loss of voice of more than two years' duration. He stated that several years previously, and before his emigration to this country, he had experienced a prolonged hoarseness of apparently similar nature, which had abated under the influence of internal treatment. The existing trouble was of between two and three years' standing, during which time he had been under the care of some of our most reliable practitioners; but it had steadily progressed from bad to worse. A laryngoscopal examination had not been instituted in any instance.

The dysphonia was marked. The voice was evidently formed in the larynx, but was very much muffled in tone, so that it could not be heard at the distance of a few feet. In order to produce even this imperfect voice, the patient was compelled to hold his head well over towards the right shoulder, producing during the time an appearance resembling a curvature of the cervical vertebræ. The patient stated that it was necessary to place his head and neck in this position to enable him to get his voice out to best advantage; and in fact I convinced myself, and subsequently demonstrated to many of my professional friends, that he did in reality experience considerable difficulty in speaking with the head in the erect position, and that the voice under these circumstances was much less distinct, barely audible, and produced with effort.

On exploring the interior of the larynx with the laryngoscope, the source of the difficulty was at once revealed. A long white foreign growth occupied the right vocal cord its entire length, and was lost to view anteriorly beneath the thyroidal insertion of the left vocal cord. The ventricular band above the growth was pressed out of shape posteriorly, so as to present an angular fold in the contour of its free border at that point.

This condition of the parts was subsequently recognized by Professors Gross and Pancoast, and by Drs. Da Costa, Levis, Wm. H. Pancoast, and many others.

The indication was to get rid of the growth, either by removal with cutting instruments or by its destruction with caustics. It was determined to try the latter plan first. I began the treatment, after some preparatory manipulations, by thoroughly rubbing the tumor with the fused nitrate of silver, conveyed to the part by means of Fauvel's laryngeal caustic holder, a clumsy instrument, which I have since discarded. This application was repeated three times a week, and the patient was directed to take, night and morning, a solution containing small quantities of iodine and iodide of potassium.

By May 20th, up to which time some eight or nine applications had been made, there was quite an improvement in the sound of the voice, and the tumor was somewhat smaller. This treatment was continued, with the substitution of a saturated solution of crystals of nitrate of silver, for a week longer, but without further benefit. I then began the local employment of chromic acid, commencing with a solution of 120 grs. to the ounce of distilled water, and subsequently employing the deliquesced acid itself, applied by means of a small bit of sponge secured in a pair of laryngeal forceps. This producing no appreciable effect after the trial of a week, I returned to the use of nitrate of silver, and after persisting with it for a fortnight or longer, without reducing the size of the tumor, and with the excitation of a good deal of irritation of the laryngeal mucous membrane, the treatment by cauterization was abandoned.

I now submitted to the patient a choice between two procedures; the one, the removal of the growth by means of cutting or crushing instruments introduced through the mouth, a procedure which might entail several repetitions of the operation, and would consume considerable time before it was concluded;—and the other, its prompt removal in a single operation after the performance of laryngotomy, which would entail at most but two or three weeks' neglect of business. The patient, being a journeyman, and losing half a day's work every time he visited me, preferred the latter plan as being more certain and expeditious, and involving less expense and loss of time.

The patient then withdrew from observation for a time, and again presented himself early in July, stating his readiness to undergo the operation at any time which would be convenient. His voice at this time was as bad as when I first saw him, if not worse; but there was no appreciable change in the appearance of the parts upon laryngoscopal examination.

As the patient lived a considerable distance from my own residence, I induced him to take board at the Charity Hospital, of this city; where, on the afternoon of July 12th, in the presence of a number of gentlemen

belonging to the medical staff of the hospital, and with the assistance of Drs. R. J. Levis and James Collins, I performed laryngotomy in the usual manner, and removed from the right vocal cord a small fibrous tumor with sessile base, and also its membranous-like attachment to the larynx, just below the insertion of the left vocal cord, which attachment, crossing the glottis anteriorly, had been divided by the knife in separating the wings of the thyroid cartilage. This attachment I had not detected in the laryngeal mirror, and its existence was revealed only during the operation. Anæsthesia was produced by ether, and the operation was performed with the patient in the horizontal position.

The thyroid cartilage was readily divided with the scalpel, and the alæ were held apart by broad blunt hooks, and thus far the operation was performed easily enough; but the spasmodic action ensuing on each attempt to seize the growth by tenaculum or forceps, and the consequent spattering of blood in the respiratory movements of the paroxysms of coughing thus excited, rendered it a somewhat troublesome matter to seize the tumor in a position favorable to its removal, and made it difficult to retain after catching hold of it. At length Dr. Lewis succeeded in securing it within the firm grasp of a pair of forceps, and drawing it out into the middle of the laryngeal cavity, I was enabled to cut it free from its attachment to the cord with a pair of scissors. The incision into the larynx had divided a membranous prolongation of the growth that crossed the middle line anteriorly, and this was subsequently held up with the forceps and cut loose from the mucous membrane with the scissors.

The blood which accumulated in the larynx during the operation was swabbed out by small bits of sponge held in the blades of curved forceps, and the bloody mucus expelled in the paroxysms of cough was caught upon a sponge as it appeared at the wound, and prevented from being drawn back into the trachea by the movements of inspiration.

The surfaces from which the growth had been detached were thoroughly cauterized with a solution of the acid nitrate of mercury. The external wound was brought together by three points of wire suture, supported by adhesive strips in the interspaces. No suture was taken in the cartilages.

The voice was still aphonic after the operation, but was produced without difficulty. There was no impediment to deglutition. As soon as the wound was dressed, the patient stood up, and said he felt very well. An attempt was made to make a laryngoscopal examination, but it was unsatisfactory.

The patient was then placed in his bed in an adjoining room, and a dry cloth laid over the wound. The patient was prohibited from attempting to swallow solid nutriment. The attendants were instructed to keep up in the room a constant evolution of steam, which was obtained by placing hot bricks and discs of iron into a bucket of water, and renewing the bricks and iron from time to time, so as to keep the atmosphere saturated with the vapor of the water. I regret that my injunctions with regard to keeping up the moisture were not properly obeyed, in consequence of which the supply of steam was intermittent and not constant; though fortunately the neglect did not cause any untoward complication.

The operation was begun at 5 o'clock P.M., and it was past six when we left the patient feeling very comfortable, without any unpleasant effect from the anæsthetic, and with but slight acceleration of pulse. There was considerable disposition to cough, attended with bloody expectoration, air being expelled through the upper portion of the wound in coughing. A tracheal tube was left in charge of the resident physician, who was instructed to enlarge the wound below and introduce the canule, should there arise any serious impediment to respiration.

I visited the patient again that night at 10 o'clock. He had slept for two hours during the interval. He still coughed a good deal, but there was less expectoration; and his pulse was at 80.

The following record has been made of the subsequent progress of the case:

July 13, the day succeeding the operation, 8 A.M.—I find the patient sitting up; he states that he has no pain; there is a little bulging of everted integument at the upper part of the wound, and due to expulsion of air with mucus at that point in coughing. The patient coughs much less than he did last night, and his sputum is but slightly tinged with blood. He speaks in a rough hoarse voice, much better than that produced just before the operation, and speaks without that peculiar carriage of the head and neck to one side. Pulse at 80, appetite strong. 7.30 P.M. Patient sat up a good deal in spite of injunctions to the contrary. He has fever; pulse 108. Coughs less; wound looks well, and there is no gaping nor expulsion of air. Upper sutures removed to allow distension if swelling should come on.

July 14, 11 A.M.—Patient slept well last night; has no fever; pulse 76; wound progressing favorably. 9 P.M. Everything favorable; pulse 62.

July 15, 9 A.M.—Pulse 80; ordered a resinous purge. 4.30 P.M. Pulse 72; medicine has operated.

July 16, 10 A.M.—Pulse 72; patient allowed solid food at dinner to-day. 5 P.M. Patient relished his dinner very much; feels perfectly well; took a short walk outside of the hospital during the heat of the day; pulse 70. He still expectorates bloody sputum occasionally. Voice no better. Removed remaining sutures.

Up to this time the patient had been prohibited from using his voice, and had been given a cane to knock on the wall with when he required any attention, and a slate and pencil with which to communicate his wants. I allowed him to use his voice in answer to my inquiries as to his condition, but at that time only. This restriction was now removed, and he was permitted to use his voice, but only as much as was necessary to indicate his wishes or needs, not for conversational purposes.

July 17.—Patient apparently well. Made a laryngoscopal examination, and observed a whitish spot on the left cord anteriorly, which I think must have been the result of a puncture during the introduction of the suture. This cord looked a little one-sided, and the anterior portion of the right cord met it like the blade of a pair of scissors, as though slightly above its level. A rough edge along the right cord marked the former situation of the growth.

July 17 and 18.—Patient encouraged to take walks outside.

July 19.—Patient allowed to leave the hospital, being one week from his day of entrance, and one week sooner than had been promised him.

I advised the patient to abstain from his usual employments for a fortnight longer, and to visit me every morning to see how he was coming on. After coming the next day, he neglected my precautions and resumed work. He visited me on the 24th of July, at which time all must have been well, as I have made no memorandum of condition; and again on the 29th, at which time he complained of sore throat. I found the whole larynx congested, and ordered an inhalation of the liquor iodinii comp., twenty drops in a teaspoon-

ful of water, three times a day. I noticed what appeared to be a circumscribed ulcer, with a layer of pus, on the anterior surface of the laryngeal wall just below the vocal cords, and seemingly in the middle line.

Aug. 1.—Found that the appearance noted at last interview had been due to the formation of a small abscess and discharge of its contents.

Aug. 9.—Patient now visited me again to show me some weeping at the lower portion of the wound, and stated that his laryngeal irritation was gone. I discovered a fistulous opening at the lower portion of the larynx, discharging a drop or two of pus externally on pressure. I insinuated a delicate probe through the tract of the fistula into the larynx, and then making a laryngoscopal examination, saw that it communicated directly with the spot in the interior observed a week previously. I directed the patient to dress this externally with an ointment composed of one part of the oxide of zinc ointment to three parts of cold cream.

Aug. 24.—Fistule still continues patent; insinuated through external opening a point of fused nitrate of silver, retaining it but a moment or two.

Aug. 30.—Renewed inhalations of liq. iodinii comp. on account of returning inflammation of interior of larynx. Fistule apparently healed.

Sept. 15.—Patient returned with the wound again open below, with escape of air from interior of larynx. The probe passed readily into the larynx, reaching the vocal cords, and provoking spasmodic cough.

Sept. 16.—Insinuated a point of nitrate of silver into the external opening, withdrawing it in a moment or two.

In a few days the wound again thoroughly cicatrized. During the whole of this period there was not that return of voice which I had confidently expected; though I had warned the patient that I could not guarantee the recovery of his voice, inasmuch as there was no knowing what changes the parts might undergo in cicatrization, and he was therefore more satisfied with the result than I was. Besides this I had begun to notice in the laryngoscope, as the parts healed, that there was a want of motion in the remnant of cord which had been the seat of the operation. As there was a good deal of tension in the posterior portion of the ventricular band, which had been pushed out of shape by the bulging of the upper surface of the growth, I thought the difficulty might be owing to this; and therefore, beginning on Sept. 15, I repeatedly incised this portion, which would reassume the same position in a day or two, and without improving the voice a particle. The patient imagined that his voice was improving little by little, but much as I wanted to think so, I could not convince myself that I detected any improvement, beyond that noticed a day or two after the operation. I subsequently came to the conclusion that, during the development of the tumor, the crico-arytenoid articulation had become anchylosed, and could not move in response to the contraction of the arytenoid muscle. My own finger not being long enough to reach the arytenoid cartilage, I requested my friend, Dr. Levis, who has manifested the kindest interest in my management of this case throughout, to place his fore-finger, which is a long one, upon the arytenoid cartilage of either side, and notice whether he could move them. He did so, and found he could move the left one but not the right. Hence, I infer that there exists this rigidity of the joint.

I then explained the condition I suspected to the patient, and told him I had done all I could do for him, and that he might withdraw from treatment with the understanding that he was to consult me in case of the appearance of any new feature in this affection, and at any rate to call upon me occasionally that I might examine his larynx for our mutual satisfaction. The patient was very loth to leave off without further attempts to recover the voice, and was very anxious that I should open the larynx again and "fix the joint;" but I declined submitting him to the risk of an operation for the performance of an experiment, especially as neither life nor health were imperilled by the continuance of the difficulty. The patient could not realize the sense of risk, and suggested my gaining access to the part from the side, if I were afraid to open it again in front. I mention this circumstance to illustrate the slight amount of inconvenience produced by the operation for the removal of the tumor. He was very much annoyed at my refusals of further interference, and left me with the remark that now he knew what was the matter with him, and if I didn't choose to operate again he would find some one who would, either here or in New York, and if he failed there, he would go back to Europe and have it done there.

I acknowledge a certain amount of mortification at not having discovered the condition of this articulation at the time of the operation. Had I examined the relations of all the parts carefully, I should in all likelihood have detected this condition if it exist, and would have been able to have instituted measures to rectify it, or have demonstrated the impracticability of such efforts. The reason the condition was not revealed in the various laryngoscopal examinations that I made before operating is, that it was masked by the presence of the tumor, itself the apparent cause of the entire trouble. This hampering of the cord, then, accounts in part for the continuing dysphonia; but not altogether, inasmuch as I have seen cases of complete paralysis of one cord, with better voices than this patient. It must be that there is still some other cause which has escaped my observation.

I saw nothing of my patient until the 8th of March of the following year, when he presented himself on account of a cough of several weeks' standing, and accompanied by purulent expectoration. He informed me that he had been under treatment of various kinds almost ever since the period at which he left me the year previous, and that he had consulted various charlatans, incited thereto by the advice of his friends, and the fact that they promised to restore his voice, while I had told him I had done all I could for him. His voice was about the same as when I had last seen him, and his larynx presented the same relation of parts. There were several superficial ulcers on the epiglottis, and one very large one occupying the ventricular fold of the sound side; the cord from which the growth had been removed was intact, as also was the ventricular fold of that side; there was no motion of the cord, however, in phonation. The patient had lost some flesh, complained of want of appetite, and exhibited other unmistakable signs of phthisis.

I placed the patient upon the use of cod-liver oil, and instructed him to resume the iodine inhalations; and the ulcerated spots soon cicatrized under the local stimulus of a solution of nitrate of silver.

I then told the patient that if he would permit me the chance of study and experience that his case would afford me, I would allow him the use of my office for a year, and do whatever I could towards restoring his voice. He consented, and for several consecutive days I endeavored to produce forcible motion of the arytenoid by grasping as much of it as I could in a curved pair of forceps. I then proposed faradization in the hope that it might be a paralysis after all, but the patient I presume was discontented with the institu-

tion of another plan of treatment, for though he promised to return at an appointed hour, he has not presented himself since. Here, then, my history of this case closes at present.

I report this case as it occurred. The operation was a success as far as regards the removal of the tumor, and consequent prolongation of life; it was a failure with reference to the restoration of the voice.

I regret my inability to have had the growth examined under the microscope, which would have rendered this record more complete. It was upset by some one after it had been laid aside, and must have been trodden upon and adhered to the sole of a boot, for although a minute search was instituted after its loss was discovered, it could not be found.

It cut, however, like a fibrous growth, and the opinion of all the medical men present at the operation was that it was of that character.

Original Lectures.

ON SUNSTROKE.

DELIVERED AT THE NEW YORK HOSPITAL, N. Y.,

BY GOUVERNEUR M. SMITH, M.D.,

ATTENDING PHYSICIAN.

GENTLEMEN—During our summer solstice, we are liable to encounter a malady which is almost instantaneous in its attack, and which is remarkably rapid in its progress to a favorable or unfavorable termination. I refer to the affection known as *sunstroke, insolation, coup de soleil*, or, as it may better be denominated, *exhaustion from heat.*

That the solar ray, which is ordinarily so salutary in its influence upon human life, can excite disease is a somewhat singular fact. Etiolation is a condition which we more frequently observe than insolation. A large part of our population are insufficiently exposed to the sun's rays during the entire year, and to a certain extent this accounts for their blanched and enervated appearance. Hippocrates recognized the benign effect of sunlight, and particularly noted its favorable agency upon the aged. Pliny recounted the benefits to be derived from reclining in the sun, and it was a wise ancient custom to construct "solaria" or "solar air-baths" on the terraces of houses in which the inmates could bask themselves.

During the same mythological age, lunar influence was supposed at certain periods to exert an unfavorable effect upon mankind, both exciting disease and augmenting the gravity of ordinary maladies. The term *lunacy*, still employed in our nosology, is expressive of this ancient belief. Certain phases of the moon were anticipated with anxiety, and the times of their occurrence were regarded as critical periods. Such crises, it was believed, recurred semi-monthly.

These views, which were held both by philosophers and by the illiterate, finally became mingled with the vagaries of the astrologists, and in the course of time were for the most part discredited. In modern times the same doctrine has been revived, and Mead, Balfour, Day, James Johnson, Mosely, and others, have advocated its truth. In India a malady occurs, denominated *coup de lune*, and which from the nature of its attack and of its characteristics may be regarded as an analogue of *coup de soleil.* Long exposure to the full moon, as when asleep in its ray, has popularly been regarded as a cause of disease. It is difficult to explain certain phenomena which have apparently corroborated this superstition. The more common interpretations which scientific men have given of such occurrences have been, that morbid influences were induced either by the damp and chilly night air or by the polarized light of the lunar ray.

Quite recently the classical Dr. Forbes Winslow,* to whom I am indebted for these facts and views, has thoroughly investigated the entire subject, and has been led to think that possibly the observers of nature prior to the Christian era were not altogether wrong in their ideas concerning the lunar influence.

The phenomena of spring tides of the ocean are observed when the moon is in conjunction and in opposition; while neap tides occur when the moon is at the quarters of its orbits; and it is now contended that there are similar tidal floodings and ebbings in our atmosphere as shown by delicate barometrical observations, and that such aerial currents are not devoid of influence upon mankind. The critical periods, asserted by several observers to have been noticed in various diseases, have occurred when the moon was at its syzygies.

I have not the time, however, to discuss this point. If the science of the nineteenth century is to prove the correctness of such a tenet we can more readily understand the meaning of the Psalmist when, in predicting the blessings of a future condition, he said—

"The sun shall not smite thee by day nor the moon by night."

Insolation is a disease induced chiefly by extreme solar heat. Many are stricken with the malady, however, who are not exposed to the direct rays of the sun. The general atmosphere becomes overheated, and consequently, within doors as well as without, the temperature is oppressive. Those who, during "heated terms," are employed in factories, laundries, kitchens, &c., where fires are required, are almost as liable to the disorder as though they were actively engaged in the midday sun.

In formerly studying the etiology of sunstroke I was led to conclude that heat was not the sole cause, and inferred so for the following reasons: A hot, *dry* atmosphere, it had been contended, might to a certain extent be resisted, for it allows free evaporation of moisture from the nostrils and air passages as well as from the skin, and the body is thereby cooled. If the *dew point*, on the contrary, is *high*, very little evaporation from these surfaces can take place, and the body more quickly becomes overheated. A fall or rise in the animal temperature of a few degrees is prejudicial to life.

In 1853, about 60 cases of insolation were treated in this hospital, and an admirable paper relating to them was published in the *New York Journal of Medicine* by Dr. H. D. Swift, Resident Physician, now deceased. During that season the dew point was very high, and quite a number of persons were prostrated in a laundry and sugar refinery, where the air was additionally surcharged with aqueous vapor, and it, therefore, seemed probable that two meteorological influences, viz. atmospheric heat and atmospheric moisture, were active agents in the causation.

Dr. S. B. Hunt, of Buffalo, in a review of Dr. Swift's cases, remarked, "the conclusion is irresistible that, not dry heat, but a long continued bath of aqueous vapor was the true cause of this unparalleled mortality."

Dr. Aitken informs us, however, in his work on Practice, that in India the chief cause is "prolonged atmospheric heat with a dry and rarefied state of the

* Vide "Light, its Influence on Life and Health." by Forbes Winslow, M.D., D.C.L. Oxon. (Hon.), &c. Am. Edit., N. Y., 1868.

air." I have examined the records of this hospital for the last three years, and have noted the days upon which the majority of cases were admitted here: in 1866, 26 cases occurred; in 1867, but one; in 1868, 26.

On giving to Dr. Jonas P. Loines the dates of these occurrences, he has kindly furnished me with the following data:—

July, 1866.	Mean Temperature.	Mean Humidity, Saturation being 100.	Humidity 2 P. M.	Mean of Barometer.	Barometer 2 P. M.
7th	91° F.	37	50	29.94	29.99
8th	91° F.	38	43	29.92	29.93
16th	98° F.	36	25	30.06	30.04
17th	94° F.	58	56	30.04	30.05
July, 1868.					
14th	88° F.	54	40	29.99	30.06
15th	90° F.	73	73	29.87	29.90
16th	88° F.	56	35	29.89	29.90
17th	80° F.	55	53	29.99	29.98
18th	83° F.	75	69	29.99	29 99

In viewing these meteorological records, we mark that while the temperature on the days indicated was high, the humidity in 1866 was low, and in 1868 was moderate, excepting on the 15th and 18th, when it reached nearly as high a point as is ever attained here. The barometer indicated that the atmosphere was not rarefied, but, on the contrary, was rather more dense than is usual.

It would appear from such facts that extreme atmospheric humidity is not an essential element in the causation of insolation, and again that atmospheric rarefication is not a necessary agency, as has been noticed in India. We learn, therefore, that an exposure to overheated air may overheat the body; but I think that there are facts to show that when the air is charged with moisture the liability to sunstroke is increased.

Those who perspire freely are not apt to become affected with the malady we are considering, but even in these persons the body may become so warm that diaphoresis will cease. We observe, as a clinical fact, when treating cases of Bright's disease with the hot air or vapor bath, that if the air thrown under the bed clothing is too hot, the patient will not sweat and will suffer with dyspnœa; if, on the contrary, the air is tempered, cutaneous transpiration will be induced and the anasarca melts away.

The experiments of Duhamel and Tillet in 1760, of Dr. George Fordyce, and Sir Chas. Blagden in 1774, of Dobson in 1775, and of Berger and De La Roche in 1806, have taught us that the body can for a short time tolerate intensely heated air as in an oven or tightly closed apartment.

Fordyce remained 12 minutes in an atmosphere of 220° F., and subsequently encountered a temperature of 260° F. Chabert, in this country, it is said, has withstood even a much higher degree. The majority of these persons have stated that the heat of their bodies did not rise above 100° F. Berger and De La Roche, however, have expressed themselves differently.

On the authority of Dunglison it is stated that "having exposed themselves for some time to a stove, the temperature of which was 120°F., their temperature was elevated 6½° F.; and M. De La Roche found that his rose 9° F. when he had remained 16 minutes in a stove heated to 176°F."

While we are not naturally exposed to any such extreme heat, our climate has occasionally its feverish periods, and our inhabitants, unaccustomed to tropical weather, are at such times liable to become overheated and to be suddenly prostrated. A pyrexial disease, accompanied with a high thermometric condition, usually betokens a case of gravity. Of no less serious import is a sudden augmentation in the animal temperature.

The prodromata of sunstroke are few, and are said to be vertigo, weariness, oppression in the epigastrium, and occasionally surrounding objects appear colored of the same hue—more commonly blue or purple. In some instances there may be no warning, and the patient immediately falls insensible.

During the last three years there have been treated here 53 cases of this malady. The majority of these have occurred during the attendance of my colleague, Dr. Thomas F. Cock.

Of the cases referred to, 47 were males and 6 were females; 38 were admitted in an unconscious condition, of which number 21 recovered, 16 died, and 1 was discharged insane. Seven were semi-comatose, of which all recovered; 5 were conscious and recovered; in 3 instances the condition on admission is not stated, and in these cases two were restored and one died.

In 17 cases the aspects of the pupils were noted; in 13 they were contracted, of which number 9 recovered and 4 died; in 3 they were dilated, of which two recovered and one died, and in one instance the pupils alternately dilated and contracted; the patient in whom this latter phenomenon occurred became insane.

The highest temperature noted was 110° F. The case in which this degree was reached terminated fatally.

The respirations are usually hurried and oppressed. The pulse may or may not indicate exhaustion. It may be natural, as occurred in a laborer, who at the time of admission had a normal temperature of the body, but who was still unconscious and had contracted pupils. He regained consciousness toward evening, but remained in the hospital three days suffering with tremors and vertigo. In some instances the pulse is strong, in others accelerated and feeble, and again it may be full but compressible.

Two patients had convulsions with opisthotonos, of which cases one died and one recovered. Chloroform arrested the eclampsia in both instances.

Semen is occasionally involuntarily discharged. One of the women who was admitted in an unconscious condition, miscarried and died on the day of her entrance.

In fine, we encounter various grades of sunstroke. It may occur as a state of syncope, similar to that induced by confinement in a close and warm apartment, and such cases are to be treated as ordinary fainting fits. Again, in more typical instances, the temperature of the body is elevated, and the patient is thrown into a state of unconsciousness from which, in the course of a few moments or of a few hours, he may be aroused and rapidly convalesce, or, on the contrary, may pass into a profound collapse beyond resuscitation. The last condition mentioned may possibly be present from the inception of the attack. Per contra, a patient may die while hot, and with a pulse indicative of strength. There are cases in which it is difficult to decide whether the malady demanding attention is insolation or cerebral apoplexy. It appears to me that the diseases may be concurrent, and that the former may excite the latter.

It is impossible to give an average mortality for the disease. If those stricken are either intemperate, or broken down in constitution, or aged, or ill at the time of attack, the number of recoveries may be small. If patients are carried a long distance to be placed under medical care, valuable time is lost, and probably many lives have thereby been lost, irrespective of any injury sustained during the transportation.

Dr. Joseph Jones states that the mortality among the prisoners at Andersonville in 1864 was 100 per cent., and that an almost similar fatality is reported by Sir Charlies Napier at Nassurpoor in 1843. Aitken informs us that Barclay gives a death rate of 42 per cent.; Butler, of 43 per cent.; and Dr. Swift in 1853, in this hospital, of 50 per cent. During the last three years in this institution the mortality has been about 34 per cent.

We cannot expect, however, to derive from such statistics any very practical information. Slight and grave cases are apt to be grouped together, and no distinctive attention is paid to the constitutional peculiarities of the individual at the time of attack. In deciding on the relative merits of different methods of treatment, we should compare cases which are differently managed, but which have similarities both in the ages and conditions of the patients, and in the gravity of the disease.

The *sequelæ* of sunstroke, as they have been observed here during the time before specified, have been as follows: In one case, chorea manifested itself, but was relieved in the course of nineteen days. In another the patient was insane for nearly two weeks. Another patient also became insane, and was returned to his family in this condition after remaining thirteen days in the hospital. Another, who was admitted with sunstroke July 16th, became crazy, and so remained until September, on the 25th of which month he was discharged cured. These occurrences were in the males only. Occasionally, after being aroused from a state of unconsciousness, patients become restless and delirious as in delirium tremens. This condition is transient, however, and after resting for a day or so they convalesce. Dr. Cock has observed the efficacy of the bromide of potassium in such cases.

As regards the post-mortem appearances in the disease under consideration, I can say but little as relating to the cases which have recently been treated here. In three only were autopsies made; congestion of the brain and lungs was observed in two of these, and in the remaining case the lungs were congested; the brain was not examined.

I come now to speak of the *treatment* of sunstroke. In speaking of the therapeutics I must recall the ordinary varieties of the disorder. The milder form, or that of simple syncope, is to be treated, as has been before stated, like cases of faintness; the graver form of syncope, or that of sudden and profound collapse, requires the immediate exhibition of restoratives. The nervous system has been overwhelmed, and vital action has almost ceased. The means suited to relieve such a condition are obvious.

We will consider the treatment of a more typical case. What indications are there to guide in its management? Under ordinary circumstances man maintains a temperature of about 98° F. If the weather is extremely cold, and if, by reason of improper food, raiment, or shelter, he is unable to generate and maintain the proper amount of heat, his body becomes cooled, and a fall in temperature of a few degrees makes him lethargic. When in this condition he is readily frozen to death.

Now what occasionally happens in our midst during the intensely warm weather? The same vital action is generating in man a uniform warmth. Unsuitable aliment and clothing, conjoined with exposure to an unusually heated atmosphere and to other unfavorable conditions, favor an undue accumulation of heat in the body. The individual falls insensible, the thermometer generally indicating that his temperature is above the normal standard.

In pyrexial disorders, when the temperature is high, we endeavor to lessen its intensity by bathing the forehead and by the internal administration of water and refrigerant draughts. Such means are grateful to and are desired by invalids.

Patients in the condition before indicated are, as we have said, overheated, and it seems rational to attempt to reduce their temperature. They are insensible and cannot swallow cooling drinks, and we should therefore apply cold to the head, or, what is better, to the arms, and further even to the neck and chest, and thus expose a larger surface in which the blood can be tempered.

If the case is an extreme one, and the temperature is very high, it may be well to strip off all the clothing and sponge the entire body with cold water, or to use the sudden cold douche; and if these means are insufficient to cool the patient and to rouse him it may be necessary to apply ice to the head and axillæ, and to rub the trunk and extremities with the same material.

The use of ice in such cases was introduced into this hospital in 1857, by Dr. B. Darrach, at that time Resident Physician. In the American Journal of the Medical Sciences for Jan., 1859, he published a report of four cases treated in this manner; three recovered and one died. In the 53 cases to which I have alluded ice to the entire body has scarcely been employed. It has frequently been applied to the head, but for general cooling it is doubtless safer to rely upon sponging and the douche.

It should constantly be borne in mind that cold is a most powerful remedy. These patients have a tendency to collapse, and if intense cold is unnecessarily employed, it may hasten such an unfortunate condition.

Be careful, therefore, to suit the degree of the cooling process to the gravity and condition of the patient, and carefully watching the effect of treatment, cease the applications at the earliest practicable moment. Resort is not to be had to the ice frictions until it is found that cool sponging or the douche have failed to reduce the temperature and to revive to partial consciousness.

Some patients come into our hands while in a state of collapse, being cadaverous in color and temperature. It would obviously be improper to employ such treatment in these cases; they have passed the stage in which refrigerant means are indicated, and now require artificial heat, sinapisms, warm frictions, and stimulating enemata to restore them.

In many cases in which the cooling process is applied, we find that the temperature of the body has diminished, the respirations become more natural, the pulse less frequent, and that consciousness has returned. This favorable condition may occur in a few moments or may not be reached for several hours, during which time, however, the harsher method of treatment is not to be continually applied, but the gentler partial applications.

In some instances the temperature falls, but there is imperfect consciousness and delirium—such patients are to be carefully dried, placed comfortably in bed, and stimulating enemata exhibited, while the head can be kept cool if extraordinarily heated. As the lungs are generally early congested, it is desirable to place sinapisms on the extremities and chest, or upon the latter dry cups may be employed. By thus favoring the peripheric circulation we lessen the liabilities to pulmonary and to other centric engorgements.

Dr. Beatson, surgeon in the India service, has encountered sunstroke among the troops under his charge, and gives the following concise directions in reference to the immediate treatment: "Unfasten as quickly as possible the man's dress and accoutrements,

to expose the neck and chest, get him under the shade of a bush, raise his head a little, and commence the affusion of cold water from a sheepskin bag, continuing the affusion at intervals over the head, chest, and epigastrium, until consciousness and the power of swallowing return. When this takes place the affusion may be stopped and a stimulant mixture given occasionally in small doses."

In regard to the use of stimulants, I would remark that the same caution must be taken in prescribing them as in ordering cold applications. As soon as the patient can swallow, water can be allowed. If the pulse is frequent and feeble, stimulants are to be given, regulating the quantity by the effect produced. I have already spoken of the condition of the circulation in the malady under consideration. In administering the alcoholic and diffusible restoratives, be governed by the force and frequency of the pulse. Their inconsiderate exhibition will prove as injurious as their judicious employment will prove salutary.

To illustrate the promptness with which patients can be restored, it may be stated that eleven of the cases, to which allusion has before been made as having been admitted here in an unconscious condition or nearly so, were discharged relieved on the same day; four on the second day; four on the third day; three on the fourth day, &c.

Such patients, on being discharged, should be advised to avoid as far as possible physical and mental labor, and to avoid exposure to the sun for some days after their convalescence, and should be cautioned to give heed to these points for some time after their health has been restored. Inattention to these precautions may induce morbid nervous phenomena, from which relief may never be obtained.

A word in regard to the *prevention* of sunstroke. Fortunately there are but a few days in the year in which we are liable to be overcome by the heat. During extraordinarily warm weather, it is especially desirable to avoid all enervating influences. We are, as it were, suddenly transported to the tropics, and are unacclimated. The pursuits of life are not materially intermitted, and attention to usual duties may provoke the disorder. The disease is by no means confined to the laboring classes, though it is more common among them.

As diaphoresis is generally profuse in warm weather, so there is a corresponding thirst. It seems proper to assuage such natural craving by cool water in suitable quantities. The excessive use of cold or iced water has been condemned, and has been regarded by some as a cause of sunstroke. We have all experienced more or less inconvenience from drinking such draughts when heated. Dr. Swift, in analyzing the causes of the sixty cases of insolation occurring here in 1853, came to the conclusion that drinking cold water hastened the development of the disease. He cited the case of a sailor who, having been at work in the sun, drank freely from a bucket of hydrant water, and after plunging his head into it, immediately fell insensible. It is not stated which form of sunstroke was thus excited. It may have been that of syncope. The system, however, should not be allowed to suffer for want of water, for abstemiousness I should infer would induce the disease. Water is to be taken that it may perform its ordinary office, in this instance, particularly, that it may moderately temper the blood and be evaporated from the nostrils, air-passages, and skin, and thus gradually cool the body. It does not, however, seem to me desirable to induce sudden shocks of the system by frequently drinking very cold beverages in large quantities. There may possibly be febrile reactions in the system after the chills induced by such draughts.

There is a professional as well as popular impression that the excessive use of very cold water will sometimes induce fatal results; and while there is any room for doubt on the question, is it not the part of prudence, at least, to abstain from such excess? A consideration of the immediate effects of cold water upon the system is a topic worthy of extended observation, but upon which my present limits will not allow me to enlarge.

Our ability to avoid disease should not ordinarily depend on the use of alcoholic stimulants. Intemperate habits enervate, and an unaccustomed and unnecessary temporary excitation at the time may be injurious or may be followed by a depression of the vital powers. There are doubtless conditions of the body in which cordials prove salutary; such cordials enabling an enfeebled body to resist extremes either of heat or of cold. But I confidently believe that the majority of people should avoid stimulants, and that they would derive advantage during the summer by using chiefly as a beverage, good water, which at times may be acidulated and sweetened. This remark particularly relates to those who are in the enjoyment of ordinary health, and who are still in the prime of life.

You are doubtless acquainted with the experiments of Franklin, Davy, Rumford, Coulier, and others, in regard to the conduction, radiation, and absorption of caloric. The scientific facts established by these observers should guide us in the selection of the color and of the fabric of our clothing. There are few of our inhabitants so poor that they cannot be suitably attired. Our laborers could readily wear a cheap white or light-colored garment over the dark *red* and *blue* shirts in which they so usually toil, and to which they are predisposed, by reason, I believe, of some fancied efficacy to be derived from the dye.

Dr. McDowall, Assist. Surg. of the Bombay Army, in writing in 1865, on the color of clothing as influencing the temperature, health, and comfort of the wearer, has given his personal experience. He says: "I well remember that when encamped on the shores of the Bosphorus, in Turkey, a little incident occurred which vividly impressed this physical fact on my memory and shoulders. The forenoon being bright and inviting, we (some other officers and myself) determined, Leander-like, to lave our limbs in the classic waters of the East, though not precisely at the same spot he patronized. The walk was pretty long and hot. We one by one took our coats off and carried them on our arms, both on going and coming from the bath. I wore a cherry-colored flannel shirt, and although all our shoulders were more or less burnt by exposure while in the water I was literally scorched, and for some days suffered greatly from the slightest movement or friction of my coat. We all suffered in *exact proportion to the depth of shade of our flannel.* Now, in the jungle in the hottest weather, and in the sun, I have often ridden, and do ride still, both for experiment and comfort, in my shirt-sleeves; but that shirt is *white.* Any other color requires a proportioned thickness—nay, even padding, according to some."

No less attention should be paid to the covering of the head. Hats should be made of light-colored straw, or felt, and the latter should allow of free ventilation. Assist. Surg. A. A. Woodhull, U. S. A., in his report to the Surgeon-General, in April, 1868, upon the uniform and clothing of our soldiers, in referring to this subject, has said: "But, whatever covering is worn, it must be light in color, and be raised from the crown, to save the soldier from the disastrous effects of direct solar heat and confined hot air."

On page 222, 9th paragraph, read "be quite hot" for "die while hot."

Progress of Medical Science.

CONGENITAL ARTIFICIAL ANUS AT THE UMBILICUS.—Dr. A. S. Mayo (*Richmond and Louisville Med. Journ.*) reports a case of artificial anus at the navel, occurring in a female child 7 days old. The cord had separated as usual, except that it had left an ulcerated surface, and from this surface both wind and discharges came. The child also passed stools by the natural anus. The artificial opening was cauterized freely, hoping in this way to excite adhesive inflammation, but this not accomplishing the object, the funis was ligated a second time. This had the desired effect, and recovery was perfect.

RHEUMATISM.—At St. Mary's Hospital the treatment, as adopted by Dr. Gibson, may be described as embracing three points: 1st, removal of pressure and tension of joints; 2d, an even and warm temperature; 3d, removal or relief of pain. To accomplish the first of these ends, the patient lies in bed, and his joints are muffled in cotton, wool, and flannel, a cradle being placed where the weight of the bed-clothes is painful. For the second, the patient wears a flannel dressing-gown, and the blankets touch the skin of the lower extremities, sheets being placed over only the upper part of the bed. For the third, the linimentum belladonnæ (ext. belladon. 3 j., linim. saponis ℥ vj.) is applied to painful joints, and covered over with wadding. Occasionally, where the pain is very excessive, from an eighth to a quarter of a grain is injected subcutaneously. For the rest, he has now and then found it useful to apply a leech or two to a swollen joint, or to the cardiac region. In cases where there appears to be a gouty complication, Dr. Gibson employs a little iodide of potassium; but apart from this he does not give any potash to his patients. He rarely finds the urine containing acid after the first few days of treatment. As regards food, the patient is allowed from the first roast meat, rice-pudding, and porter. The patients spoke in strong terms of the efficacy of the belladonna liniment. At night they generally slept well. —*Lancet.*

VAGINISMUS CURED BY BROMIDE OF POTASSIUM.—Dr. Raciborski publishes a case of excessive vaginismus which had existed for some time. It was accompanied with dysmenorrhœa. Bromide of potassium was prescribed, and the cure was rapid and complete.

NITRATE OF SILVER IN ERYSIPELATOUS INFLAMMATION —John Higginbottom, F.R.S., recommends the use of nitrate of silver in the following manner: The affected part should be well washed with soap and water, then with water alone, to remove every particle of soap, and then wiped dry with a towel. The concentrated solution of four scruples of nitrate of silver to four drachms of water is then to be applied two or three times on the inflamed surface, and beyond it on the healthy skin, to the extent of two or three inches. The solution may be applied with a piece of clean linen attached to the end of a short stick, the linen to be renewed at each application. In about twelve hours, if any inflamed part be unnaffected, the solution should be immediately reapplied. Sometimes, even after the most decided application of the silver, the inflammation may spread, but it is generally much less severe, and is checked by repeated application. —*The Practitioner.*

NINE BONES IN THE CRANIUM.—Dr. W. J. Burge (*Leavenworth Med. Herald*) has been shown the skull of an adult, said to have been that of a negro, with a peculiarity of the occipital bone. From one and a quarter inches on each side of the junction of the sagittal with the lambdoidal suture, there is a perfectly distinct suture, the two meeting just above the occipital protuberance, and forming a lozenge-shaped bone. Dr. B. inquires if this is the peculiarity of the skull of all negroes.

PHOSPHATE OF SODA IN THE INTESTINAL TROUBLE OF CHILDREN.—Dr. Wm. Stephenson recommends this medicine in the following cases:—In children who are being artificially reared, and who are liable to frequent derangement of the bowels; also, when the phosphatic elements in the food seem deficient, or when articles of food rich in phosphates, such as oatmeal, disagree; and when from the character of the motions there is a deficient or defective secretion of bile. It is thus of service in cases of chalky stools or white fluid motions. It has also been found of service in many cases of green stools. It is also found useful in diarrhœa generally. It is chiefly in that class of cases which are termed duodenal dyspepsia that it is of benefit. Diarrhœa after weaning is generally of this nature. He also uses it with adults in some cases of constipation.—*Edinburgh Med. Journ.*—*Nashville Journ. of Med. and Surg.*

ERGOT IN FACIAL NEURALGIA.—Dr. Campbell gives the following testimony of the efficacy of ergot:—"I have used it in a severe case of facial neuralgia, which had resisted quinine, morphine, and val. zinc, and found that sixty grains in infusion in three doses promptly arrested it."

ATROPHY OF THE HEART.—The following general results are presented by Dr. N. Finn, of the Pathologico-Anatom. Institute of St. Petersburg, as having been derived from the examination of one hundred hearts. 1. Simple atrophy is never developed as the only morbid condition. It is unattended by a morbid condition of the cardiac blood-vessels. 2. Neither the absolute or relative weight of the heart, thickness of its walls, nor their reduced circumference, can be received as a certain indication of the presence of atrophy of the organ. 3. The brown atrophy of the heart, so-called from a morbid change in the coloring matter of the muscular tissue, is a common accompaniment of all diseases attended with great emaciation. 4. Fatty degeneration of the heart (fatty infiltration) occurs chiefly in persons who have a large development of the subcutaneous adipose tissue; the infiltration is often to such an extent as to prove troublesome. 5. Fatty degeneration of the heart occurs as an acute or a chronic affection. It is observed more frequently on the right than on the left side of the organ. In some cases the entire substance of the walls of the ventricle is affected, in others only a portion. In the chronic form there is always atheromatous degeneration of the cardiac blood-vessels. The *arcus senilis* is never met with in cases of fatty degeneration of the heart.—*Centralblatt f. d. Medicinisch. Wissenschaften.*

REGENERATION OF ORGANS IN ANIMALS.—In the lower animals, and even in certain classes of the vertebrates, it is common to observe the growth of an organ or member which has been removed. It is interesting to know up to what point in the animal scale this mutilation may be effected with the probability that the organ may be reproduced.

M. Philipeaux has already proved by experiment that the spleen in the mammifers and the limbs in the salamander are not reproduced unless a portion of the organ be left in its place. New experiments on fishes have enabled this observer to generalize the results first established by him. He cut from the middle of the abdomen of gudgeons the left abdominal fin, and immediately placed the fishes in water under favorable

conditions for health. Eight months afterwards the fins were completely reproduced.

In a second series of experiments he excised the fin with all the bones which support it. Some of the fishes died; but those which lived presented, eight months afterwards, a simple cicatrix, with no effort whatever at reproduction of the member.—*Med. Press and Circular.*

Prevention of Pain from Blisters.—M. Bricheteau states that he has found the hypodermical injection of from 5 to 10 drops of a solution of hydrochlorate of morphia (1 part to 50 of water), made immediately before applying the blister, a most excellent procedure. When the blister is good it begins to rise in from three to five hours, and, as the effect of the morphia lasts for six or eight hours, all pain is prevented during the process. In some persons, whose skins resist a blister more than ordinarily, the injection may be delayed for an hour after its application. By this means, when a blister is applied at night, the patient, so far as it is concerned, may still enjoy his night's rest; and sensitive persons are saved much suffering, as, for example, in the case of the application of blisters to the hypogastric region in young women. The dressing a blister also requires attention. No greasy substance should be applied; but having left as much of the raised epidermis intact as possible, this should be emptied of its serum by a broad clip with scissors, and, after it has sunk down again on the dermis, a thick layer of wadding should be applied. This is to be left on for two days, no other dressing being required. Cicatrization may also be hastened by the following contrivance:—Cut a good-sized hole in the centre of the blister before applying it, and this central untouched portion greatly expedites the healing of the denuded zone which surrounds it.—*Bull. de Thérap.*

Spina Bifida; Injection of Iodine; Recovery.—The rule is that these cases die. M. Roux, of Meximieux (France), has recently published in the *Bulletin de Thérapeutique* the case of a girl, six weeks old, presenting this deformity. The tumor hung from the extremity of the sacrum to the lower third of both thighs. The author first made an exploratory puncture, and removed about an ounce of a limpid fluid. He tried then the following plan:—An assistant was desired to hold the tumor in such a manner as to occlude the opening into the spinal canal; the operator then injected an ounce of the following solution: Distilled water, eleven drachms; tincture of iodine, three drachms; and iodide of potassium, 180 grains. The liquid was left five minutes in the sac, the latter being kneaded with the hand of the operator. The solution was then withdrawn to the last drop by the exhausting agency of the syringe. This proceeding succeeded so well that, in a fortnight, there was only a hard nucleus left, no larger than a walnut. M. Roux attributes his success to the occlusion of the canal, and to the withdrawal of the very last drop of the injected fluid.

On Accommodative Asthenopia.—Dr. J. G. Rogers, Madison, Ind. (*The Western Journal of Med.*), relates the following case of asthenopia: A lady, aged 30 years, when first seen had suffered for two years from asthenopia, to such an extent that the mere effort of fixing vision for a moment induced severe frontal pains, toothache, lachrymation, palpitation of the heart, and an intolerably nervous condition of the whole system, even pains in the lower extremities. Coupled with this was an inability to walk or make any marked exertion without the same exhibition of inability of the whole muscular and nervous system. Chronic metritis with retroversion, which had existed for several years, was the foundation of all this trouble. On examination of the eyes, a hypermetropia of one twenty-fourth was found. Number thirty glasses were ordered to be worn constantly, but no change was experienced. Thereupon the ciliary muscle was paralyzed by instillations of atropia, and it was found necessary to continue this for five months before the habit was obviated. Then the glasses were comfortably borne, and began to fulfil the indication of doing part of the work of accommodation, which, in ordinary cases, they will do from the moment of applying them. From that time to the present, two years, the irritability of the eyes has gradually lessened, and now the patient can read for a short time quite comfortably. The glasses are constantly worn, though at times they are laid aside without discomfort. By rational application of every possible means the nervous debility and its cause, the uterine lesions, were made to succumb, and now the patient expresses herself as enjoying a comparative elysium.

Treatment of Erythema Nodosum.—H. S. Purdon, Physician to the Belfast Dispensary (*The Medical Mirror*), recommends the following prescription for erythema nodosum, especially if the bowels be at all costive:—

℞ Decoct. aloes co. . . . ℥ iij.
Mist. ferri co., . . . ℥ iss.
Boracis . . . . . ʒ ss.
Tinct. hyoscyami . . . ℥ ss.

M. Sig.: A tablespoonful thrice daily. No local treatment, with the exception of warm fomentations of poppy capsules and rest, seems to be of any use.

A New Treatment for Chronic Dysentery.—Dr. E. M. Morse (*California Medical Gazette*) pursues the following method in treating this disease: The diet is carefully regulated, and the patient kept in a recumbent position, to assist the return of blood from the mesenteric veins. At daybreak, on each alternate or fourth day, he gives a mild cathartic to clear the alimentary canal. After the aperient has acted sufficiently, he injects, very slowly, from two to four pints of Labarraque's solution, in the proportion of one to twenty of water. As much of the injection is used as the patient can well retain. Each injection should be a little stronger, until the patient can feel a smarting or burning sensation. Should there be any tenesmus after the injection has passed out, he uses an opium suppository. The injection of the soda should generally be used once a day, though as the disease progresses favorably it may be given less frequently.

Solvents for Croupal Membrane.—The *Gazetta Medica di Lombardia* records the results of many experiments on the solubility of false membrane. The specimens selected were as nearly as possible of the same consistence and of a gramme in weight.

1. Solution of iodide of potassium, one in ten. At the end of fourteen hours, the false membrane was reduced to filaments.
2. Sulphate of zinc, same strength. After fourteen hours membrane had shrunk.
3. Bromide of potassium. After fourteen hours membrane was transformed into a pulpy substance.
4. Chloride of sodium, chloride of barium, and hyposulphate of soda gave same result.
5. Cyanide of potassium. Complete solution in fourteen hours.
6. Borax. Membrane became yellow and tough.
7. Muriate of ammonia. No result.
8. Sulphate of iron. No result.
9. Carbonate of potash. Complete solution.

10. Sulphate of soda. No result.
11. Chlorate of potash. In three hours became like charpie.
12. Lime water. Same effect in same time.
13. Bicarbonate of soda. Perfect solution in three hours.
14. Nitrate of silver, one in ten. Hardening and contraction.

The Physiology of the Cerebellum.—S. Weir Mitchell, M.D. (*Am. Jour. Med. Sciences*), during the last six years has experimented chiefly upon birds, with reference to the physiology of the cerebellum, and the foundation for the following opinions rests upon experimental and other proofs peculiar to his own personal researches, and also upon a wide general consideration and study of the clinical history of cerebellar disease. The experiments made upon the cerebellum have extended over portions of at least six years. During this time he has ablated the cerebellum eighty-seven times, and performed more than 260 experiments upon the influence of irritants on this and adjoining organs. He is disposed to deny to the cerebellum any larger share in co-ordination than exists in any ganglion employed in voluntary motion, and to assign to it a part closely relating it in powers to the chain of spinal ganglia. The cerebellum becomes, therefore, a great re-enforcing organ, capable of being more or less used in volitional muscular motion. Its loss leaves no functional defect save some incapacity for prolonged motor activity. He finally adds, that while he believes the cerebellum to be one of the great centres of force-development for voluntary, and perhaps involuntary motion, he is not at all prepared to assume that it has no other function.

On Phosphorus Poisoning and Fatty Degeneration.—Wm. Pepper, M.D., in an article on "Phosphorus and Fatty Degeneration," recently published in the *Am. Jour. Med. Sciences*, states that phosphorus acts by entering the blood in the form of a highly irritant substance, and in the course of its excretion from the various glands induces a degree of irritation bordering on inflammation, attended with proliferation of cells, which are not fully organized and readily undergo fatty degeneration. The red blood-globules are dissolved by phosphoric acid as by the bile acids. The falling of the temperature of the blood, the ecchymoses of the serous membranes, the serous effusions stained with dissolved hematine, bloody urine, which are noted after its introduction, are all results of the same peculiar action. The manner in which this destruction of the red globules, which are the oxygen-carriers of the blood, favors fatty degeneration, is evident; and, when combined with the tendency which always exists in cells formed by unduly active proliferation, to undergo this change, appears to Dr. P. to afford a satisfactory solution of the extraordinary lesions met with in phosphorus poisoning. In conclusion, he alludes to the close similarity between the symptoms of yellow fever and acute atrophy of liver, and those of poisoning by phosphoric acid, taken in connection with the fact that the bile acids resemble it closely in their action on the blood.

Cases of Ovariotomy.—Dr. Henry Miller, late Professor of Obstetric Medicine in the University of Louisville, Ky. (*Am. Jour. Med. Sciences*), has always regarded the operation of ovariotomy with some degree of aversion. The uncertainty that must hang over the diagnosis in some cases, notwithstanding the improved methods of investigation, makes him hesitate and ponder long before he can bring himself to the point of laying open the cavity of the abdomen, and sweeping it with his hand to determine the nature of the tumor and the possibility of its safe removal. He holds that it is an impossibility to know of a certainty, before the operation is commenced, whether or not there are adhesions of the tumor of such a nature as to render it hazardous, if not impracticable, to extirpate it. He prefers the ligature to Mr. Wells's clamp, in cases of short pedicles, and asks, what evidence have we that the clamp, or any other of the numerous methods of treating the pedicle which have been devised, is preferable to the ligature as used by Dr. Ephraim McDowell, of Danville, Kentucky, who first conceived and executed the operation of ovariotomy? If we look into Mr. Wells's book, we shall find that out of 114 cases of completed ovariotomy, in nearly all of which the clamp was used, 75 recovered, 39 died; 65 per cent. recoveries. Dr. Clay's cases, up to the latest date he had access to, numbered 110, of which 76 recovered, 34 died; 69 per cent. recoveries, 4 per cent. in favor of the cases in which the ligature was employed.

A Sedative in Children's Diseases.—According to Dr. Charles West, the value of tincture of hyoscyamus as a sedative in the diseases of children can scarcely be too highly estimated. He orders:

℞ Tr. hyoscyami.....ℳxviij.
Syrupi.....f ʒ iij.
Aquæ.....f ʒ ix.

M. S.—Dessert-spoonful every six hours for a child one year old. To this mixture there may be added, if there is much feverishness:

Potassæ bicarbonatis,
Acidi citrici.....āā gr. xx.

Also, if the stomach be not irritable:

Vini ipecacuanhæ.....ℳxij.

A Good Suppository.—Dr. J. M. DaCosta recommends the following suppository, to be introduced at night, to quiet restlessness and induce sleep where it is not desirable to give opiates:

℞ Assafœtidæ.....gr. x.
Extracti hyoscyami.....gr. iij.–v.

M. Fiat suppositor.

A Frequent Cause of Facial Neuralgia.—Dr. Fort, of Paris, believes that facial neuralgia is often produced by a lesion of the buccal mucous membrane immediately behind the molars, and produced by the evolution of the wisdom tooth.

Double Lithotome.—M. Amussat recently exhibited to the Academy of Medicine a double lithotome, of very simple construction, and which enables the surgeon to extract by the perineum the largest calculi which can pass through that region.

Treatment of Retroversion of the Uterus.—J. Byrne, M.D., Surgeon to St. Mary's Female Hospital of Brooklyn (*The Am. Jour. of Obstetrics*), in a paper on "Retroversion of the Uterus," stated that there is no malady to which females are more subject than chronic metritis, and this condition should always receive the first and most careful attention of the physician.

He also remarks, that as dilatation of the os internum is a primary and essential step in commencing the topical part of our treatment, and as it is often impossible to insert a sponge-tent beyond the cervix, he has found those formed out of sea-tangle invaluable, as, when inserted once or twice, there is no difficulty in using the larger kind made of sponge, if deemed necessary.

Nevertheless, it is worse than folly to hope for any permanent benefit from topical measures merely; and,

on the whole, constitutional treatment, and a strict observance of hygienic rules, are not only absolutely indispensable, but without them every other means will avail nothing.

Reflex Irritation from the Rectum a Cause of Uterine Disease.—J. C. Nott, M.D., N. Y. (*Am. Journal of Obstetrics*), reports an interesting case of dysmenorrhœa depending upon the engorgement and spasmodic contraction of the internal os, caused by reflex irritation from the rectum. The rectum presented on examination three external and two internal hemorrhoids, which were removed with scissors and ligatures. To palliate the uterine pains, he inserted into the vagina a soft, round sponge, about the size of a pullet's egg, saturated with a solution of morphine and sulphite of soda, in the following proportions: ℞ Sulph. morphine, gr. v; Sulphite soda, ʒ ss.; Aqua, ʒ j.

In this case the sponge, prepared in this way, and tepid vaginal washes of salt-and-water, were continued for a month, during which time she was comfortable.

In conclusion, he never treats uterine affections without inquiring minutely into the condition of the rectum. Hemorrhoids, small ulcers, irritability, spasmodic contraction of sphincter coccodynia, are common causes of affections of the uterus, as well as vaginismus and other affections of the vagina. With regard to the use of sulphite of soda, the objects in using it were two: *First*, it has gained some reputation as an application to inflamed surfaces; *second*, it is an antiseptic which would prevent the sponge from becoming foul.

Acne Rosacea with Hypertrophy of the Nose.—Guibout (*Annales de Dermatologie et de Syphilographie*, No. 2, 1869) discusses the subject of Acne Rosacea with hypertrophy of the nose, and relates the case of a man, 45 years of age, who had used every form of external and internal treatment with no success. From six to ten incisions were made into the nose every two, three, or four days; the bleedings were encouraged for from five to ten minutes; then lint soaked either in Goulard's lotion, or in a concentrated ammoniacal solution, was applied with some pressure; the application was kept moist. With this treatment the hypertrophy of the nose rapidly subsided, due to adhesion of the walls and obliteration of the distended blood-vessels. This treatment was suggested by Hebra, five years ago.

Properties of Curare.—MM. Auguste Voisin and Henry Lionville (*Chicago Med. Journal*) have determined that curare is a poison of the motor nerves; that muscular irritability is preserved intact, and that death from curare poisoning occurs only from abolition of motor power in the entire economy.

Death by Electricity.—M. Matteucci (*Chicago Med. Journal*) has recognized the fact that poisons do not all act in the same manner, and that, when the animal is killed by electric discharges, the excitability of the nerve by the current is destroyed. This observation ought to be taken into consideration in this regard, as it shows the danger of exciting the nerves too strongly.

The Removal of Obstructions in the Sebaceous Glands.—Dr. Martin (*British Med. Journal*) states that many skin diseases depend on inflammation of the gland ducts, caused by decomposition and inspissation of the glandular secretion. The normal secretion of the sebaceous glands consists of a fatty hydrocarbon, which sometimes is decomposed and converted into a hydro-sulphuret, and becomes black on exposure to light and air. On chemical grounds he proves that a solution of corrosive sublimate, grs. ij. to aquæ ʒ j., decomposes the hydrosulphuret, and in this way removes the obstruction.

Enlargement of the Papillæ in Lichen Ruber of Hebra.—Dr. Neumann, in the *Proceedings of the Vienna Academy*, certifies that the enlargement of the papillæ in the Lichen Ruber of Hebra is due to increase in the size of the capillary loops, and to cells deposited along the walls of the blood-vessels. The outer root or sheath of the hairs at the base of the hair-follicles presents teat-like prolongations that indent the hair-follicle, so that it looks like a venous gland, and the hair splits up from the bulb.

Carbonic Acid Exhaled.—Dr. Edward Smith (*The Chem. Gazette*) ascertained that the amount of carbonic acid exhaled by the lungs was in proportion to the actual work performed.

During sleep it was at the rate of...	293	grs. per hour.
When lying down and approaching sleep.....	355	" " "
In a sitting posture.....	491	" " "
When walking two miles an hour.	1,088	" " "
" " three " " "	1,552	" " "
And when working at the treadmill.	2,926	" " "

Pus in the Cornea.—Fried. A. Hoffman, in a paper on the development of the pus in the cornea (Virch. Arch., tom. 42), believes that the observations of Cohnheim are correct. Prof. Thiersch, also, is partly convinced of their correctness, but withholds all criticism for the present.

The Use of Forceps in Various Countries and by Different Medical Men.—In Great Britain forceps are reported to have been resorted to in 1 out of 249 cases; in France, 1 out of 140; in Germany, 1 out of 106.

Simpson has used them in 1 out of 472; Collins 1 out of 720; Baudelocque, 1 out of 561; Ramsbotham, 1 out of 611; Madame La Chapelle, 1 out of 293; Madame Boivin, 1 out of 214.

Mammary Gland Removed by Caustic Arrows.—Dr. Gill (*The Med. Archives*) lately presented to the St. Louis Medical Society a specimen of a cancerous mammary gland that had been removed by Dr. Gregory, by means of "arrows" made of chloride of zinc and flour.

Treatment of Typhoid Fever by Glycerine.—Mr. E. Shedd (*British Med. Journal*) recommends glycerine in the treatment of typhoid fever, and says, as soon as there is any tenderness in the abdomen, upon pressure, he prescribes drachm doses of glycerine (in the case of an adult), to be repeated three times a day. Under this treatment, the temperature gradually subsides, becoming normal towards morning, and rising to 99° Fahr. towards evening. The secretions soon improve, a profuse perspiration frequently prevails, diarrhœa is quickly checked, and the patient becomes convalescent.

Of the numerous cases which came under his observation, he has treated twenty-seven in the manner described, and with complete success, as not a single death from typhoid fever occurred.

Ergot in the Treatment of Purpura.—Dr. Bauer, of Neutershausen (*Deutsche Klinik*), reports great success in the treatment of purpura hemorrhagica with secale cornutum. He gives 8 to 10 grains three times, or oftener, daily, until hæmorrhagic manifestations cease. When anæmia remains he treats it with chalybeates.

THE MEDICAL RECORD.

A Semi-Monthly Journal of Medicine and Surgery.

GEORGE F. SHRADY, M.D., EDITOR.

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New York, July 15, 1869.

NECESSITIES FOR POPULARIZING MEDICINE.

ON a former occasion we made some remarks concerning the relations existing between our profession and the people. We took the ground that the main reason for the present low popular estimate of medicine was a want of the knowledge upon which its grand principles were founded. It was also our endeavor to point out the necessity of popularizing a sufficient knowledge of these principles to combat much if not all of the existing prejudice against us. If the general plan of introducing elementary books on anatomy, hygiene, and physiology, be carried out more fully than is at present being done, we are convinced that, far from anything being lost to us, there is everything to gain. In this opinion we are by no means alone; not only do we know that the majority of the profession are with us, but the teachers in many of our first-class literary colleges are persuaded that its general adoption would be fraught with the best of advantages to their pupils, and would add not a little to the attractions of the college course. Since our article on the subject we notice also that many high-schools have established chairs for instruction in these branches, and have selected well qualified members of the profession to fill them. This must have the ultimate effect to which we have hinted, and quite an extensive field must by and by be opened to the best minds among us for the production of the proper books for the purpose. Already some new works of this sort are in preparation by some eminent men, and there will, we hope, soon be room for many more.

In the endeavor as a profession to educate the people in the manner referred to we must not have the selfish object in view of merely making proselytes. The proper estimate of the honor and usefulness of our calling must rest alone upon the grand truths which science and experience have bequeathed us. No right-thinking person, old or young, needs any special appeal on behalf of self-evident truths.

Our mission, as custodians of the health of the community, is not only to cure disease, but by every means in our power to prevent it. This latter we can in a measure accomplish by imparting the knowledge of hygiene and its allied sciences.

Not only by this means can we enable the people to ward off disease, but not unfrequently can death be prevented in sudden attacks when there is no time to summon a physician. How often do we meet with illustrations of this truth! Let us take into account the matter of accidents alone. A man in walking the streets is overcome with the heat and falls to the pavement. His helpless condition appeals in the most powerful manner to the sympathies of passers-by; every one is ready to help without knowing how; no physician is obtainable on the instant, and ten chances to one the poor unfortunate is killed with kindness. We see an illustration of the same principle, with less serious results, in cases of epilepsy. If a poor epileptic is seized with an attack in the street, woe betide him—fingers will be poked in his eyes, his head will be deluged with water, he will be treated to a bastinado vigorously administered, salt will be crammed into his mouth, and if he gets half as much air as he needs, it will not be from the lack of a crowd around him.

Another class of examples is furnished every day in the ordinary accidents to which mechanics and laborers are liable. When any such occur, and they are always sudden and unexpected, every shop-mate or associate is at hand with a remedy. Quids of tobacco, spirits of turpentine, balsam Peru, are ever ready for smaller wounds, while in larger ones with hemorrhage the clots are either carefully washed away with wet sponge or cloth, or the part is wrapped in strangulating bandages. Every physician knows how the list of such examples can be extended, and he has not to think very long to suggest to himself a true preventive of the mischief. The people are not to blame for their ignorance in these matters; if they knew better they would most willingly do better, and many lives might be saved that are otherwise lost. If we begin the proper education of the people at school, we start with them at the most proper time, when the mind is readiest to receive truths before they can be biassed by grand-ma notions, and when they will be most apt to be retained, we elevate their minds from the first, and teach them how to look over and beyond the horizon of prejudice. The trade-mark stamp upon the steel blade is always made before the metal is tempered.

We have taken the opportunity of again referring to the practicability of introducing the study of elementary anatomy and physiology into our schools, in order to urge the profession to use its influence publicly and privately in the proper direction. We should not rest satisfied until every high-school in our land has some responsible medical teacher or lecturer. There is in our opinion no danger by so doing of making self-constituted doctors; on the contrary, the tendency will be so much the other way, that the physician will be considered more in the proper light of a careful and judicious

adviser than a mere administrator of drugs. The more knowledge of medicine the people possess the readier will they consult a regularly educated medical man on all necessary occasions.

In a future number we shall continue the discussion of the general topic by a reference to the relations which medicine holds to the other leading professions.

Reviews and Notices of Books.

A TREATISE ON THE DISEASES OF THE EYE. By J. SOELBERG WELLS, Professor of Ophthalmology in King's College, London, etc., etc. Philadelphia: Lindsay & Blakiston. 1869. Pp. 741.

ON LONG, SHORT, AND WEAK SIGHT, AND THEIR TREATMENT BY THE SCIENTIFIC USE OF SPECTACLES. By J. SOELBERG WELLS. Philadelphia: Lindsay & Blakiston. 1869. Pp. 248.

ALTHOUGH the works whose titles we have placed at the head of this notice would seem to be two, the latter is really a part of the former, or the former is a complete treatise which has grown from the latter well-known monograph on the Refraction and Accommodation of the Eye. J. Soelberg Wells was about the first English author who gave the profession a comprehensive idea of Donders' teachings on the subject of the scientific use of spectacles, and his compilation attained a deserved success; although, as usual, when our English brethren adapt the labors of Germans to their own tongue, this skilful use of the researches of another caused English reviewers to speak of the author as if he were the originator of opinions instead of a careful and excellent compiler of those of others. Mr. Wells has now presented the profession with a treatise which must take its place among the best of recent works on diseases of the eye; indeed it has excellences peculiar to itself. The author has enjoyed vast opportunities from his position at Moorfields, the largest Ophthalmic Hospital of which we have any records; and he has given us the benefits of his experience in independent expressions of opinion, which entitle him to be considered as an authority in ophthalmic science and art.

The work embraces a full account of the diseases of the organ of sight and the mode of investigating them, commencing with an introduction which treats of such subjects as eversion of the lid, mode of ascertaining the degree of intra-ocular tension, examination of the acuteness of vision, field of vision, &c., &c., passing on to diseases of the conjunctiva, cornea, iris, ciliary body, lens, and so on, closing with the affections of the muscles of the eye, lachrymal apparatus, orbit, and eyelids. The book is illustrated by 104 wood engravings, of which there is no index—an annoying omission, although a slight one. Some of the best of these are from Stellwag's book, and very few were prepared expressly for this work. The chromo-lithographs are reproductions of Liebreich's published some six years ago, and are not to be compared in excellence to those in Stellwag's treatise, still less to those in Jaeger's lately published atlas. We cannot imagine why it was necessary to reproduce the plates of any author, when the very large number of cases at Mr. Wells' disposal would have furnished him any variety of actual appearances from which to illustrate the diseases of the fundus oculi.

The descriptions of disease are clear and readable. The treatment is set forth in a very thorough way. Glaucoma, that comprehensive disease, still the puzzle in many of its phases, of modern ophthalmology, receives fair consideration. The argument for the performance of iridectomy may have been necessary for English readers, it is certainly not for those of America. With us all who are able to recognize Glaucoma are willing to use any means of treatment which promises success, since under the old regime of mercury, blistering, and paracentesis, all glaucomatous eyes were blinded. The difficulty experienced by general practitioners is in diagnosis, and we have not yet reached the day when a typical disease called glaucoma can be described. To use the words of one of our eminent practitioners, we are yet "nibbling around the question." Mr. Wells' descriptions are, perhaps, as clear as any we have. On reading the paragraph on secondary or consecutive glaucoma, which we think lacks fulness, the student of ophthalmology will get the correct idea, that the disease in question, or increased intra-ocular tension is one of protean form, for which the practitioner must be constantly on the look-out in his treatment of inflammatory diseases of the various parts of the eyeball. Retinitis and keratitis might well have been added as affections upon which glaucoma may supervene.

The chapters on the anomalies of refraction and accommodation are the same as those composing the book entitled Long, Short, and Weak Sight. We need not say that the subject is well, though as must, perhaps, necessarily be the case in the large treatise, superficially discussed. More attention should have been paid to the ophthalmoscopic diagnosis of the errors of refraction, than the bare statement that "the strength of the correcting concave lens will also enable us approximately to estimate the degree of the myopia," and a reference to *Mauthner's Lehrbuch der Ophthalmoscopie*. The test tables of our countryman, Dr. Green, of St. Louis, for determining astigmatism are deservedly commended. The chapter on the affections of the muscles of the eye is, perhaps, the best in the book, and all students of these affections will derive great profit from its careful study; a simple reading of any such chapter will not be sufficient.

It would have been well, we think, to include the anatomy of the parts in a treatise such as this, but tastes differ in this respect. It also seems to us a book that has been made up at very different periods of time, and that therefore lacks the unity of design and execution so desirable in a systematic treatise; but, perhaps, this is unattainable in a treatise embracing a subject so vast.

Our readers will not expect any detailed analysis of this work; our space does not permit. We cordially welcome it as a valuable addition to ophthalmic literature, a literature which is now assuming such gigantic proportions that every practitioner not specially engaged in treating diseases of the eye must rely on treatises embracing the whole of the subject for reference and aid. He cannot wade through the almost myriads of monographs with which the German, English, and French press are teeming.

Mr. Lea, of Philadelphia, has reprinted Mr. Wells' book, while Lindsay & Blakiston publish the original edition with an American title-page. Those who wish to allow the author the benefit of his copyright will, of course, buy the latter, especially as the paper and type of the English edition are all that could be desired, while that of the American is much inferior, though fair.

THE MEDICAL PROFESSION IN PARIS.—There is a doctor for every 1000 inhabitants in Paris.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

STATED MEETING, MAY 3, 1869.

DR. GEO. T. ELLIOT, JR., PRESIDENT, in the Chair.

THE resolutions, which we have before published, upon the death of Dr. Alexander H. Stevens were unanimously adopted.

PROGNOSIS IN BRIGHT'S DISEASES.

DR. AUSTIN FLINT read a paper (published in full in *N. Y. Med. Jour.*), with the above title, of which we present an abstract:

After a discussion of the elements which enter into prognosis in general, showing that this must draw upon every department of medical knowledge, the speaker proposed to consider the prognosis in Bright's diseases: 1st, With reference to the different renal affections constituting Bright's diseases; 2d, With reference to their symptoms and complications; and 3d, With reference to their treatment.

1. *The Different Affections.*—The doctrine that the various lesions of the kidney, formerly comprehended under the term *Bright's disease*, are but different phases or modifications of one affection, is now nearly abandoned. We have come to speak of Bright's *diseases*, and the question now is, How many and what are the different affections to which this name has been applied? To answer this question completely is, perhaps, at present impossible; and this is not strange when we compare the history of renal pathology with that of the pathology and diagnosis of pulmonary diseases for example; when we recollect that it is but lately that pneumonia, bronchitis, and pleurisy were confounded. But considerable progress has been made in the differentiation of renal affections; and, without canvassing disputed views, the five following may be enumerated as having their individuality as well established as the present state of our knowledge admits; (*a*) inflammation within the convoluted tubes, called by Johnson "desquamative nephritis," and by Dickson "tubal nephritis;" this, like other inflammations, may doubtless be acute, subacute, or chronic; (*b*) the "smooth white kidney;" (*c*) the fatty kidney; (*d*) the fibroid, contracted, atrophied, or cirrhotic kidney; (*e*) the waxy, lardaceous, or amyloid kidney.

With regard to prognosis these five affections widely differ. Desquamative nephritis may, and perhaps commonly does, end in recovery, leaving the structure of the kidneys intact. But it probably sometimes leads to the smooth white kidney, and perhaps also to the fatty kidney. Whether recovery from either of these conditions ever occurs, it is impossible to say; but it is "highly probable that, having progressed to a certain extent, the morbid process or processes, whether imflammatory or not, which these diseases involve, may cease, and retrogression take place, leaving at length the organs, if not intact, not damaged enough to compromise seriously their functional capacity. . . . . The cirrhotic kidney must be regarded as involving a permanent lesion; . . . but even this may cease to be progressive, after a greater or less amount of damage, and recovery be possible in the same sense as recovery from tuberculous disease of the lungs is considered as having taken place, that is, the morbid processes cease, and there are no longer any symptoms of disease, but the functional capacity of the organs is more or less impaired." The waxy kidney is of less practical importance, being so rare. It is possible that its peculiar lesion may disappear, or at all events become non-progressive, leaving the kidneys with functional capacity sufficient for life and even for health.

The prognosis, then, is by far the most favorable in desquamative nephritis, and decidedly the gravest in the cirrhotic kidney. Hence the importance of an accurate differential diagnosis. But it is not always possible even to diagnosticate desquamative nephritis; nor can we determine, in the case of the other four affections, whether the amount of damage suffered is incompatible with comfortable health for an indefinite period.

In an analysis of one hundred and three cases, mostly observed and recorded by Dr. Flint himself, there was good ground for believing that in twenty-two recovery took place. In several of these twenty-two cases it was quite certain that the disease was tubal nephritis; but in others of them there was room for supposition that there were other lesions which had ceased to progress. This analysis illustrated in a marked manner a very important point, "the ability of the system to tolerate Bright's diseases when they are progressive as well as when they are stationary." Many of the hospital patients had been discharged, feeling well enough to return to their toilsome vocations. In many cases the patients had continued to labor for weeks and months after the appearance of œdema of face and limbs. Of fifty-three cases whose previous history showed no antecedent disease, in thirty the general health was apparently good up to the special manifestations of renal disease, that is, either dropsy or uræmic phenomena. In six of these thirty cases, uræmic coma or convulsions constituted the first special manifestations. Two of them were related at length, and these conclusions drawn: (*a*) "Coma and convulsions may occur when the health, to all appearance, is good, the disease destroying life, as it were, by a sudden explosion. The most frequent disease in such cases, undoubtedly, is the contracted kidney. (*b*) Renal disease may exist for a long period, that is, for years, without giving rise to any notable manifestations, and without compromising apparently the general health."

2. *Symptoms and Complications.*—"The ability of the system to resist and recover from any important affection is more or less impaired by its occurrence in connection with Bright's diseases." It therefore becomes important in the prognosis of such affections to determine whether or not renal trouble exists, perhaps in the latent form. For this we must rely upon the urine; and in considering its testimony it is to be remembered that albuminuria may exist, without indicating any of Bright's diseases, and also that one or more of these may exist, though rarely, without being indicated by albuminaria.

As to complications, observation has shown that the serous inflammations, pleurisy, pericarditis, peritonitis, and meningitis may be caused by Bright's diseases; and that when so caused they are commonly fatal, with the exception of pleurisy, which is itself far more dangerous than when occurring as an independent affection. There are strong reasons for believing that "simple hypertrophy" of the left side of the heart is an effect of renal disease; and that in this connection, as in the case of hypertrophy dependent on valvular lesion, it is probably conservative, and so does not render the prognosis more unfavorable. Valvular lesions can hardly be charged to the account of the kidneys. When they coexist with renal disease, their own evils and dangers are to be added to those of the renal trouble.

As to symptoms, uræmic coma and convulsions always involve great immediate danger, sometimes destroying life in a few moments. Yet the patient may survive them, and make a complete recovery from the renal disease; or if this disease progresses, still "the attacks may recur after long intervals, during which there may be an appearance of recovery, inclusive even of the disappearance of albumen and tubular casts from the urine." Uræmic vomiting and purging betoken danger of coma and convulsions; they also involve danger from innutrition and asthenia, which may even prove fatal. Dropsy is not of itself a specially unfavorable sign, but it may become so if persistent and returning speedily after removal, particularly if associated with great anæmia and prostration. In certain situations it of course involves great immediate danger, as in œdema of the lungs and of the glottis. As a rule, in proportion as general dropsy is great, the urine contains albumen in abundance. But there seems to be no constant relation between albuminuria and the uræmic phenomena. That there is a relation between these phenomena and the amount of urea excreted, there can be no doubt. But our data are as yet insufficient to establish any fixed rule with reference to this relation.

3. *Treatment.*—That the prognosis, in many diseases, depends greatly on our power to control them by treatment is evident. How is it with Bright's diseases? We have no specific against them; but we may unquestionably sometimes postpone or prevent their worst effects—uræmic coma and convulsions, with their terrible dangers—by therapeutical interference. We may save a patient, otherwise doomed to die within a few hours, by the energetic use of hydragogue purgatives, elaterium being incomparably the best, and by the hot air or vapor bath. The elaterium is no less valuable in the symptomatic hydrothorax and pulmonary œdema.

"The first great object of treatment of the Bright's diseases which involve structural lesions of the kidneys is the arrest of their progress. The next great object is the retardation of their progress. And when these objects are beyond the resources of medicine, a great object still remains, namely, to secure for the longest possible period, and as completely as possible, the tolerance of these diseases. Of course the prognosis is affected favorably in proportion as these several objects lie within the grasp of treatment." As we have no specifics, and even the palliative cathartics and diuretics may do harm rather than good if persisted in, our general treatment resolves itself into that which places the system as a whole under the best conditions. A great part of this will be hygienic, and the most important considerations relate to climate. Dickinson's statistics show that the ratio of deaths from renal disease to the total number of deaths is, in London, 1 to 49; in Paris, 1 to 266; while in Bombay it is 1 to 2800; and in Genoa 0 in 4303. The records of the hospital in Milan give 1 case of dropsy with renal disease to 2807 admissions; those of St. Mary's Hospital, London, 1 to 31. The statistics of the British army show the proportion of deaths from renal disease notably greater in temperate climates than in either tropical or cold ones. These facts warrant the expectation in cases of chronic Bright's diseases occurring in temperate climates, that arrest of the diseases, or retardation of their progress, as well as increased and prolonged tolerance of them, may often be effected by a timely change of climate." It is very desirable to collect cases showing the results of such change. As Paris and London offer so marked a contrast, it is possible that changes not involving removal to great distances may prove very serviceable.

Dr. H. Knapp referred to the importance of retinitis as a prognostic sign in Bright's diseases. It was commonly stated that retinitis occurred only in the advanced stages of the renal affection, and this was true of the vast majority of cases; but sometimes it presented itself even in the early stages, so that the ophthalmoscope might determine the diagnosis months before any thoracic or cerebral symptoms appeared. In many cases the engorged veins would diminish in size, as also the exudations and hæmorrhages and spots of fatty degeneration; but relapses were almost sure to occur, so that, where retinitis existed, it was pretty safe to predict a fatal result. Yet exceptions to this rule were to be found, and the doctor had met with some in his own practice. One patient, whom he had found affected with retinitis in 1862, and had supposed long dead, turned up five years later in full health. Another, a man forty or fifty years of age, had Bright's retinitis in one eye, and said that he had recovered from a similar attack in the other eye some eight years before. The multiplication and peculiar contortion of the retinal vessels, as exhibited in these two cases after recovery, the speaker had never seen paralleled. [They were shown in a blackboard drawing.]

Dr. Newman believed that the ophthalmoscope gave the only reliable indications for prognosis in Bright's diseases. He was in the habit of submitting all such cases to its decision, and this the event had always verified. In half a dozen cases examined by Dr. Althof, the prognosis had been very accurate. Perhaps the most striking cases were those where the examination gave a negative result. A woman, under the speaker's observation for seven years, had several attacks of œdema with albuminuria, leading to the diagnosis of Bright's disease. About four years ago these symptoms were very marked. She went to the New York Hospital and remained there over ten months, thus coming under the observation of the whole staff, who all concurred in the diagnosis. The urine showed casts and albumen in abundance. Dr. N. followed up the case, expecting the patient's death; but after ten months she got well. Soon afterwards she had another attack. It occurring to him that no ophthalmoscopic examination had been made, she was sent to Dr. Noyes, who reported a negative result; and she was still alive.

Dr. Gouverneur M. Smith thought that renal disease might be held responsible for certain affections of the ear, as it was known to be for those of the eye already referred to. Albuminuria in Bright's diseases he was inclined to regard as an instance of nature's conservative action, the kidneys relieving the blood of an excess of albumen. The question of climatology in these affections he deemed one of great importance. He had discussed it quite fully in a paper recently presented to the Academy, containing reports of 308 cases; and his statistics upon this point, to some of which he referred, might prove of value. A favorite mode of treatment in the Bellevue and New York hospitals was the use of the hot-air bath, in conjunction with Spts. Mindereri and Ipecac., inducing profuse diaphoresis and diuresis.

Dr. Neftel remarked that the prognosis in Bright's diseases depended very much upon the diagnosis of the special form we had to deal with, and this could often be pretty accurately determined. For instance, it was not very difficult to distinguish amyloid degeneration from the other forms, taking into account the clinical history of the case. This form of degeneration of the kidney might be caused by constitutional syphilis, tuberculosis, caries and necrosis of the bones, or, lastly, chronic ulcers of the limbs. Professor Fischer, of Breslau, had shown that chronic ulcers of the legs, if allowed to persist unhealed, invariably lead to amyloid degeneration of the kidney. Hence the cure of such

ulcers became a matter of great importance; and we had the means of effecting it in Langenbeck's continuous bath, electrolysis, etc. In amyloid degeneration the urine was peculiar, having a high specific gravity and a very dark color. It contained the special coloring principle, indican, which could be extracted by appropriate means. Under treatment with strong sulphuric acid, but without the addition of sugar, this gave the same play of colors as the biliary acids under Pettenkofer's test. In illustration of the certainty of diagnosis, the speaker referred to the case of a man who had come to him for heart disease. This was set aside by the examination, and the patient pronounced to have amyloid degeneration of the kidneys. He afterwards went for treatment to Heidelberg, where he died, the post mortem confirming this diagnosis.

A test for albumen, more delicate than those commonly employed, was identical with Trommer's test for sugar. Some specimens of albuminous urine would yield no precipitate with heat or nitric acid; but on treating them with a solution of sulphate of copper and potassa, the supernatant liquid, after the subsidence of the precipitate, would be left of a beautiful and characteristic purple color. The presence of grape (diabetic) sugar did not interfere with this test; so that both sugar and albumen might be tested for at once, the sugar being shown by the cuprous oxide, and the albumen by the purple color.

As to the treatment of Bright's diseases, in Russia, the speaker's own country, the milk cure had found great favor,—the patient drinking milk in large quantities, and taking no other food or medicine. The results of this plan were often wonderful, the patients greatly improving and the albumen disappearing from the urine.

Dr. Peaslee had listened to the paper with much interest, as showing how great progress had been made, even within a very brief period, in our knowledge of renal diseases. He thought, however, that the nomenclature was still defective. The phrase "tubal nephritis" should be discarded, as synonymous with "acute desquamative nephritis," and the transient affection denoted by it should be struck from the catalogue of Bright's diseases, from which it differed as much as pleurisy or pneumonia from phthisis. As to climate, it was probably credited with much that did not belong to it. For instance, there could hardly be so great a difference of climate between Paris and London as to account for the reported difference in the prevalence of Bright's diseases.

Dr. Caro (?) thought that the influence of climate, whether for the production or for the palliation of Bright's diseases, had been greatly exaggerated. The effects attributed to it were doubtless in great measure due to the habits of the people in different countries with regard to the use of wines or stronger liquors. He had noted this in Italy, where the Neapolitans were addicted to strong spirits, and were more subject to Bright's diseases than the residents in other states, under the same conditions of climate, where wines were drunk almost exclusively.

Dr. ——, during three years' quite extensive practice, both civil and military, in New Mexico, had found but one case of albuminuria, although there was a large amount of very bad whiskey consumed there. The climate of that region was exceedingly dry.

Dr. Hanbury Smith could say that in Sweden, during his long residence there, he had found Bright's disease occurring almost exclusively among those accustomed to the use of distilled liquors. Deaths from this cause were frequent in hospital. But among the better classes, where wine was the ordinary stimulating drink, the disease was much rarer. The race and habits of life of a people were quite as important etiological elements as climate. Whatever their cause, the peculiarities of the Scandinavian race were strongly marked. On one occasion, in an examination of many thousand children, in the orphan asylums, he had been unable to find a solitary instance of true scrofulous diathesis. Again he had never seen a case of gout in a true Scandinavian. On the question of climate, it was not to be forgotten that a large proportion of the inhabitants of northern countries pass the winter months in an artificially warm climate, with close double windows and an unvarying heat from porcelain stoves. He had himself suffered more from cold in a single winter in Ohio than in the many he had passed in Stockholm.

Dr. O'Sullivan thought that the use of the sparkling wines was prophylactic.

The President said that this matter of the effect of climate on renal diseases was one of the great questions to be determined in the future. As bearing on the value of statistical results, it was necessary to learn whether examinations of the urine were as faithfully and thoroughly made in some cities as in others, both in the hospitals and in private practice, which was always influenced by that of the hospitals. And if it were proved, as doubtless it would be, that climate is a powerful agent in these diseases, had we not within our power, as already suggested, such control over climate as to give our patients its greatest benefits without sending them from home? Could we not, by the more systematic use of the Turkish and the Russian bath, established in our hospitals and brought into our houses, produce that increased action of the skin which would be insensibly brought about by the change to a warmer climate, and so realize its chief advantages? Let the experiment be carefully tried in a hundred cases, and it would go far towards settling the question.

The milk treatment, spoken of by Dr. Neftel, ought certainly to command general attention. Patients who had given over every other form of treatment, came to this with results almost incredible, according to statements in the foreign journals.

In conclusion, the speaker would express his yearly strengthening conviction that a favorable prognosis might, much oftener than he had once supposed, be made in cases of albuminuria in puerperal convulsions. Though successive pregnancies should exhibit severe convulsions, with the urine highly albuminous, and of low specific gravity, yet, at the end of twenty years' hospital practice, he felt that if the patient could only be carried well through the labor, the prognosis was much better than, even five years ago, he should have dared to hope. He had followed a number of such cases through years of subsequent health.

Dr. John O. Stone could endorse the President's remarks concerning puerperal albuminuria. He had made a point of following up all such cases as had occurred in his own practice; and he deemed this very important, that the profession might have the benefit of trustworthy statistics of the results. He would mention one striking case: Ten or eleven years ago he was suddenly sent for to visit a woman in confinement; all pains had ceased, and her medical attendant suspected rupture of the uterus. She was terribly exhausted, and had lost the sight of one eye. The urine showed abundance of albumen. The patient was stimulated, and the baby was born but died soon after. The woman then came under the speaker's care. For six years she had albuminuria; but for the last four years this had not appeared. She had not again become pregnant.

The Society then adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, JUNE 23, 1869.

DR. LEWIS A. SAYRE, PRESIDENT, in the Chair.

DR. DELAFIELD, on the part of the Committee on Microscopy, reported Dr. Finnell's specimen of tumor of the bladder to be a variety of myosarcoma.

EXTENSIVE CANCER OF LIVER.

DR. FINNELL presented a specimen of extensive cancer of the liver, removed from the body of an old lady, seventy-two years of age, who was found dead in the water-closet. On making the autopsy to ascertain the cause of death, the only lesions found were in the liver and cranial cavity. The former was completely studded with cancerous nodules. There was found also an extensive sub-arachnoid effusion, which was supposed to have been caused during the efforts of straining at stool. The large intestine, particularly the sigmoid flexure and rectum, was enormously distended, the result of the atonic condition coincident with advanced age.

PURULENT CYST OF BRAIN FROM INJURY.

DR. FINNELL also exhibited a purulent cyst, the size of a hen's egg, with walls half an inch in thickness, which was removed from the anterior lobe of the right hemisphere of the brain of a boy ten years of age. While gathering chips on the sidewalk, he was injured on the side of the head by a block of wood thrown from the upper story of a new building. The patient was insensible for a time after the injury. He was attended for a period of two weeks after, by a medical man, and seemed to be improving. At the end of the ninth week he was, however, seized for the first time with a convulsion, and suddenly died. The membranes on the internal surface of the skull, opposite the external injury, were adherent to the surface of the brain. There was a good deal of softening of the brain-tissue in the neighborhood, and deep down in the substance of the lobe the cyst referred to was found.

PERFORATING ULCER OF THE STOMACH.

A third specimen by Dr. Finnell was the stomach of a woman who had died of hard drinking, showing the commencement of a perforating ulcer of the part. A fourth specimen was likewise a perforating ulcer. This latter was, however, in a complete condition. It was situated on the posterior wall of the stomach, midway between the pyloric and cardiac extremity, and was removed from the body of a female twenty-six years of age. She had been suffering for years past with symptoms of dyspepsia, attended with the usual distressing paroxysms of localized pain, but there was never any vomiting of blood.

On motion of Dr. Newman the specimen of tumors of the liver was referred to the Committee on Microscopy.

EPITHELIOMA IN THE UPPER LIP.

DR. WHITEHEAD presented a specimen of epithelioma of the upper lip, removed by an elliptical incision from a male patient of the dispensary. The wound was brought together with hare-lip pins and sutures. The latter were of yarn (at the suggestion of Dr. Buck, who was present at the operation), and were dipped in a solution of chloride of zinc, and a solution of carbolic acid.

DR. C. C. LEE asked if Dr. Whitehead had ever met with a case of epithelioma of the upper lip in a female.

DR. WHITEHEAD replied in the negative.

DR. SAYRE had seen two cases on the lower lip in women.

DR. HOWARD had met with one, the past week, on the upper lip of a male patient.

DR. ROGERS had a case of large-sized epithelioma of the left cheek, in a man.

DR. LEE remarked that, inasmuch as epithelioma resembled chancre in appearance, and as its occurrence on the upper lip, especially of a female, was so very rare, it was his custom to diagnosticate such sores as syphilitic.

DR. WHITEHEAD believed that authorities were in great error in supposing that the irritation of a clay pipe-stem had anything to do with the production of the disease.

(To be continued.)

CHOROIDAL PIGMENT.—The choroidal pigment of various animals has recently been investigated by Dr. A. Frisch, with very high microscopic powers—No. 15 of the Hartnack immersion lenses. He finds in the interior of the six-sided cells, and also in the more irregularly shaped cells which form sheaths for the elements of the bacillar layer in many animals, minute crystalline bodies with sharply defined borders and angles, and usually of a somewhat elongated form. If the pigment be not examined until some time after the death of the animal, the angles and edges become more or less rounded, and the form of each spicule becomes more or less spheroidal. In the interior of the hexagonal cells these bodies are all arranged perpendicularly to the general plane of the retina, and present a remarkably symmetrical arrangement. In the long pigment sheaths of birds, the pigmentary corpuscles are rod-shaped, and lie in regular series one behind the other, the crystals of the successive series cohering by their points. Dr. Frisch was also able to discover, with the aid of a Nicol's prism, that they possess the power of doubly refracting light.—*Lancet.*

MEAT PRESERVING.—Messrs. Medlock and Bailey, of London (*Gardener's Chronicle*), by a simple process, preserve meat with success, and have obtained a patent for their perfection in curing mutton, poultry, fish, and beef. Any housewife can preserve these edibles in a couple of minutes. Carcasses of sheep or sides of beef may be cured whole or in the most minute portions. The whole secret consists in dipping the animal substance into a solution of bisulphite of lime, and allowing it to remain there for about twenty minutes. One of the best recommendations to this process of preserving animal food is the innocuous character of the bisulphite of lime, the basis of the solution used.

AN EPIDEMIC OF MEASLES.—In the *Dublin Quarterly Journal of Medicine*, No. 98, Dr. Carroll gives an account of an epidemic of measles lately prevailing in Sydney, Australia, which was very fatal; the eruption was of a dark color and very limited in extent. In some cases three or four blebs about the size of a dollar were developed on the extremities, which ruptured, leaving gangrenous sores behind. If the patients did not die early, there was a marked tendency to convulsions, and to paralysis of the voluntary muscles.

TO STUDY CHOLERA AT ITS SOURCE.—The English Government have sent two commissioners to India—Drs. Cunningham and Lewis—to study the causes of cholera at its very source.

NATIVE COPPER.—Native copper is found not only in the United States, but also in Liberia, Australia, Cornwall, and Sweden, mostly in primitive rocks, or those belonging to the lower Silurian series.

Correspondence.

PROTRACTED GESTATION.

MALFORMATION OF THE HEAD OF THE CHILD.

To the Editor of the Medical Record.

Sir—Having noticed in the Record of February 15, "a case of maternal impression" (from the Lancet) by E. Child, M.R.C.S., I have thought the following case, which is very similar in some respects, worth publishing.

In January, '67, I was engaged to attend Mrs. B., who expected to be confined for the third time in the first week of the following April—she calculating from the first week in the past July, since when the catamenia had disappeared. I was not called, however, until the night of the 24th of May, when I found the labor progressing rapidly; but on making the examination to ascertain the presentation, I was at first somewhat puzzled in consequence of coming in contact with a soft fleshlike tumor, connected with what I soon satisfied myself were parts of the head and face. A few pains, however, expelled a large male child, well formed with the exception of the head, which was much below a fair proportion to the size of the body, and the bones which form the anterior fontanelle were only partially formed—especially the frontal and parietal—leaving nearly half of the cranial vault, an opening through which about half of the brain, covered only by the membranes, protruded an inch above the level of what existed of the parietal and occipital bones, in the shape of a large mushroom: the back of the head being covered with the common integument and a little hair.

From the superciliary ridge downward the child was well and naturally formed, except very prominent eyes and an aquiline nose, which gave the face the expression of a middle-aged man. It never uttered a cry, but breathed feebly for twenty-four hours, and expired in convulsions.

The mother attributed the misfortune to a fright she received in the fifth month of gestation, from being thrown from a buggy in crossing a slightly swollen stream in the vicinity.

Wm. F. Edgar, U. S. A.

Drum Barracks, Cal.

HOSPITALS OF MADEIRA.

To the Editor of the Medical Record.

Sir—The Island of Madeira is 30 miles in length and 12 miles in width, and contains a population of 120,000. Funchal, the principal town, has about 23,000 inhabitants. The island is mountainous, the highest peak being about 7000 feet above the level of the sea. The vegetation combines the temperate and tropic zones. A more equable climate does not exist than that enjoyed by Madeira, the average temperature being 67°F. throughout the entire year. Sir James Clark, in speaking on the subject and contrasting it with that of Continental Europe, says: "Warmer during the winter and cooler during the summer, there is less difference between the temperature of the day and that of the night, between one season and another, and between successive days; it is almost exempt from keen cold winds, and enjoys a general steadiness of weather, to which the continental climates are strangers." The only drawback is the general dampness of the climate during the winter season. During the whole of the present century the island has been a resort for invalids, principally phthisical patients. Other diseases are benefited by the climate, but phthisis stands prominent. At the present time there are about 450 invalids, foreigners, English, Germans, French, and Americans, few of the latter, however, sojourning here for their health. With very few exceptions, they either feel better here, or permanently benefited. All such patients as a damp climate will agree with—and that can only be discovered by actual experiment on the part of the patient—can have an excellent winter season in Madeira.

The native doctors, on the other hand, assert that phthisis is on the increase in the island amongst the peasantry; if such be the case there are very good causes for it. The peasants, since the failure of the grape in 1856, have been growing wretchedly poor. Living in huts with the earth for a floor, the door serving a triple capacity, in the way of window and chimney, and mode of egress and ingress. Living on an entirely vegetable diet, meat only being eaten at Christmas and Easter, and the parents with their numerous progeny breathing the vitiated air of the single-roomed hut. These causes would in themselves be sufficient to originate some cases at least, leaving out of consideration any hereditary taint. Some extent of the so-called increase of phthisis here may be inferred when the hospital Santa Casa da Misericordia, which receives its patients from the whole island, does not at the present time contain but two phthisical patients. So the phthisical increase must be taken "*cum grano salis.*"

The town of Funchal contains a Medico-Chirurgical school, it being in the Misericordia hospital. The course comprises four years, and lectures are free to all who may desire to attend, the Lisbon government paying the four professors. There are 34 pupils, whose studies will soon be completed; then the school is to be discontinued on account of the small means of medical instruction. There is no clinical instruction, no dissection, and but few minor operations. There is an effort being made to have the school continued by the Funchalites, their reasons being to the effect that the young men have nothing to do, except study.

Funchal contains four hospitals, Santa Casa da Misericordia; Princess Maria Amelia's hospital, completed in 1862, an institution which would do credit to any city in the Union; at present it contains no patients. The Leper hospital, containing about 35 inmates in various stages of the disease, appears to have been fitted up with the idea that repulsive patients require miserable accommodations. The Lazaretto is a newly erected building in the suburbs of the city, with all the modern improvements to patients.

In Funchal there are about 18 doctors—two-thirds surgeons, one third physicians—graduates mostly of the Lisbon school, some few from the Parisian. The status of medical lore is not the highest by any means. There are two English physicians practising here at present, but they are doing so in direct violation of the law, as the Lisbon government allows no foreigners to practise medicine, unless an examination is passed before the constituted medical board at Lisbon. An excellent idea, but it is said that they refuse permission to some worthy men on account of their strong prejudices.

P. A. Callan.

Cerebro-spinal Fever.—An epidemic of this fatal disease has made its appearance in Dundalk, Ireland, and has proved fatal in many cases.

Obituary.

ALDEN MARCH, M.D., LL.D.,

ALBANY, N. Y.

The subject of this sketch was a gentleman who, by dint of a long life of perseverance and industry, acquired for himself a national reputation. For many years he has been the leading surgeon of Albany, and in the northern and western districts of the State, and his opinions have commanded respect over the entire country.

He was born in Sutton, Worcester County, Mass., in 1795, and after the usual preparation entered Brown's University, where he graduated at the age of 23. Soon after this he commenced the study of medicine, with an elder brother, who was then surgeon in the army, and attended medical lectures in Boston. Having obtained his degree of Doctor of Medicine in 1820, he moved to Albany. In 1821 he began a course of lectures on anatomy in the attic of an old building in Montgomery Street, Albany. The material was brought from Boston at great risk, and many were the hair-breadth escapes of the young surgeon. About this time he was appointed Prof. of Anatomy in the Castleton Medical College, and soon became very popular as an interesting and systematic teacher. In 1839, the Albany Medical College having been founded, he associated himself with it as Prof. of Surgery, and he continued to occupy the chair until his death, June 19, 1869. It was during his connection with this latter institution that he won his reputation as an original thinker and daring operator. In appreciation of his services to his profession, he received the degree of LL.D., from Williams College, and the high honor of the election, in 1863, as President of the American Medical Association.

Prof. March was long a member of the Presbyterian Church of Albany, and was a faithful and ardent worker in various Christian associations. He sank with the harness on at the ripe age of 74, leaving behind him an unblemished character, as a man and a Christian.

Dr. A. H. Stevens.—At the stated meeting of the New York Pathological Society, held June 23, 1869, the following preamble and resolutions were unanimously adopted:—

Whereas, Alexander H. Stevens, M.D., one of the oldest and most honored members of this Society, has been recently removed by death—

Resolved, That we hereby express our deep sorrow for the loss occasioned by his decease.

Resolved, Shat we bear testimony to his eminent classical and scientific attainments, great moral worth, excellence as a practitioner of medicine and surgery, superior ability as a teacher of surgical principles and practice, and accuracy of judgment as counsellor in sanitary affairs.

Resolved, That a copy of these resolutions, duly authenticated, be transmitted to the family of the deceased and the medical journals of this city.

Lewis A. Sayre, M.D., *President*,
Geo. F. Shrady, M.D., *Secretary*.

Deceased Physicians.—According to the necrological report of the Union College Alumni Association, the following physicians have died since the last assembly: Alex. G. Fonda (class 1803), at Schenectady, March 4, 1869. Wm. Lyman (class 1829), at Rockford, Ills. Theodore F. Hall (class 1850), at Rochester, N. Y., March 5, 1869. George A. Pomeroy (class 1857), at Omaha, Jany. 4, 1869. M. Henry Van Gysling (class 1860), at Schenectady, Feb. 18, 1869.

Medical Items and News.

Massachusetts General Hospital.—From the annual report for 1868, it appears that the total number of patients admitted in this hospital during the year was 1,265, against 1,206 the previous year. The number of free patients was 771, against 626 the year before. The average weekly cost of each patient is $12.74; being $1.46 higher than for 1867, and $1.14 lower than for 1866. 5,264 persons were treated as out-patients during the year, being an increase of 711 over the previous year. Among them were 121 cases of dislocation and fracture, 46 tumors, 94 lacerated and incised wounds, 79 felons, 150 abscesses, 88 contusions, 93 diseases of joints, and 32 cases of hip and spinal disease. 2,338 were males; 2,926 were females. 2,449 were Americans; 2,815 were foreigners. The building containing the new operating theatre and the out-patient department proves to be admirably adapted to its purposes. The operating room will comfortably seat 420 persons.

The Philadelphia County Medical Society on the Female Physician Question.—Our readers will remember the discussion on this point, reported in a recent number of the Record. Since then several of these members have attached themselves to the Women's College and Woman's Hospital in defiance of the resolutions adopted, and have not withdrawn voluntarily (save in a single instance, that of Professor Hartshorne) from the Society. Lately a circular has been issued to all its members in the following terms:—

Philadelphia County Medical Society—Dear Sir—At the stated meeting held April 21, 1869, the following was unanimously adopted:—

Whereas, it is well known that some of the members of this Society are holding professorships in the Woman's Medical College of Pennsylvania, or occupying the position of consulting surgeon or physician in the Woman's Hospital of Philadelphia, or holding consultations with the Professors, Graduates, &c., of the above institutions, in violation of the rules and regulations of this Society:

And, whereas, it is believed that some of the members so offending are not aware of the passage of the resolution by this Society, at the stated meeting in October last, upon this subject: therefore,

Resolved, That the recording secretary is hereby instructed to furnish a printed copy of the above resolution to every member of this society, with the request that those who are holding professional intercourse with the Woman's College of Pennsylvania, or with the Woman's Hospital of Philadelphia, or with graduates of the former, will either purge themselves of the violation of the rules and regulations of this Society, or resign their membership of the same.

Resolution adopted at stated meeting held Oct. 21, 1868:

Resolved, That it is the sense of this Society that the preambles and resolutions adopted by it in regard to Female Colleges, their professors and graduates, are such as do disqualify such professors and graduates from becoming members of this Society; and further, that the accepting and filling of any professional chair in a Female College by a member of this Society disqualifies him for active continued membership of this body; and furthermore, that the essence and sense of the preambles and resolutions referred to deny to the members of this Society the right to professionally consult with any professor or graduate of a Female College.

Attest: Wm. B. Atkinson, *Recording Secretary*.

THE JERSEY CITY CHARITY HOSPITAL.—A new institution recently erected in Jersey City, N. J., was formally opened June 9, 1869. The premises comprise six lots of ground at the foot of Washington Street, with two hospital buildings, a dispensary, and alms-distributing depot. It is filled up with all the modern improvements, with a first class medical staff, and is a credit to the county. Dr. J. W. Hunt delivered the inaugural address, which was a model of its sort, and was well calculated to give the public a proper idea of what a hospital should be. In the course of his remarks, for the purpose of illustrating the kind of medical care which patients receive in the hospital, he related the following:

A New York surgeon was called on one occasion to set a broken arm of a very wealthy man, who persistently endeavored to impress the idea that he was not like other mortals, in that he had money, and should, therefore, require special care and attention. The surgeon remained silent for some time, but finally replied: "I shall give you the same care, make the same exertion for your comfort, apply the same kind of dressing, and you shall have the benefit of the same skill and ability that I should employ in the treatment of the poorest patient in the hospital, were he under my care, and injured in the same manner; and if you obey instructions as he would, I doubt not you will have as good an arm as I should expect him to have."

BAHIA.—A correspondent sends us the following interesting item: Bahia is the medical headquarters of Brazil, Pernambuco standing in law in the same light to the empire. The city contains a population of one hundred and fifty thousand whites, negroes and Indians—the mixed races predominating. A stranger is perfectly astonished at the large amount of doctors of medicine and law which the empire contains; every newspaper will convince the sceptic upon this point. It is explained in this way—that the Brazilians are anxious after titles, and as study will obtain one, the fact becomes evident; for neither does law nor medicine require any student's fees to become either the one or the other. It is a common thing to meet sugar planters who are M.D., and they turn it to account in doctoring their slaves. There are two medical schools in the empire, one in Rio de Janeiro, the other here. The course comprises six years' study, modelled after the French. Text books are in the Portuguese and French languages. Applicants for studentship are examined; if found qualified they pay for matriculation, then they can attend all the lectures free. Lectures commenced April 1st, and will continue through the rainy season. It is very difficult to keep dissecting material in this climate; the rainy season is as warm as our average summer.

Bahia has adopted our code of ethics, and appreciates them. The charges for medical attendance about the same in both countries.

The only medical journal published in the empire is published here tri-monthly; it quotes freely from European and American medical journals. It was started about two years ago for the first time. There are no medical books edited by native Brazilians. It will seem rather strange to hear, after adopting the Code of Ethics of the American Medical Association, that it is a common thing for the regular doctors to advertise; even the professors in the medical college do so.

Foreigners coming here to practise medicine will be obliged to undergo an examination in medicine, surgery, &c., in the Portuguese language. The aspirant is given two patients to examine, with full histories to be written; then a thesis of his own selection to be written. At this present writing there are two foreign doctors in Bahia, a German and an Englishman.

There are three hospitals here; Misericordia, answering to our Bellevue, containing 300 patients; the Portuguese and Military hospitals; all kept in good order.

In this town the medical status is somewhat antique both in their thoughts and practice; their armamentarium of surgical instruments is deficient in many of the latest improvements.

Entrance into the army and naval service of the empire is obtained by medical graduates of Brazilian schools, showing their diploma.

The diseases that are common to this vicinity, are malarial fevers and dysentery. The profession here find a species of anæmia, which they designate as tropical and caused by continued and prolonged heat.

Elephantiasis of both varieties is quite common in Brazil; so much so, there is a special hospital in Rio de Janeiro for such patients, Hospital dos Lazaros, of which more anon.

UNIVERSITY OF BERLIN.—In the medical department of the University of Berlin there are 48 instructors of different grades. Some of the lectures are given in the large building, formerly the palace of Prince Henry, brother of Frederic II., presented by Frederic William III. to the University. On the opposite side of the street, in the grounds of the Hospital La Charité, stands the Pathological Institute, in charge of Prof. Virchow. The course of instruction is very complete. On Mondays students are tought by Virchow or his assistant the proper method of making autopsies. On Wednesdays and Saturdays he devotes two hours to the exhibition and description of specimens, upon a few of which most of the time is spent—*Cor. Boston Med. and Surg. Journal.*

VACANCY FILLED IN THE PARIS ACADEMY OF MEDICINE.—M. Verneuil has just been elected to the place in the Section of Surgical Pathology left vacant by the death of M. Velpeau.

MEDICINES USED BY THE CHINESE.—In a work taken from the library of a Chinese physician we find a catalogue of one thousand and twelve medicines, of which there are from metals and stones 138 kinds. Grasses and vegetables, 313 varieties. Trees (whether the medicine be found in the root, trunk, bark, leaf, flower, fruit or seed), 177. From the human body, 20 kinds. From animals, 91 kinds. From fowls and birds, 34 kinds. Bugs, worms, snakes, shell-fish, turtles, flies, &c., furnish 99 kinds. Fruits, 40 kinds. Of the cabbage, turnip, and melon families, 62 kinds. The list of medicines taken from the human body is as follows: Hair, cut fine and used in plasters; curly hair, woman's milk, dandruff, teeth filings, ears, exuviæ, parings of finger and toe-nails of pregnant women, which nail-parings are reduced to ashes by burning; bone of the forehead, reduced to ashes; beard of the upper lip; hair from virginis pubes; blood; the placenta; the gall.

AN EARLY MENSTRUATION.—T. H. Turner, Union City, Tenn. (*N. Y. Medical Journal*), reports the case of a girl, 8 years old, weighing 110 pounds, who has the symmetry and beauty of a miss of sixteen. Every month of her entire life she has menstruated regularly, the flow continuing 24 hours, and always attended by a slight headache. She weighed 8 pounds when born, and had the proportional symmetry of person now seen in her case.

ARTIFICIAL CHAMPAGNE.—Belgian chemists manufacture a champagne which sells at a franc a bottle.

THE CLEANEST AND BEST ARRANGED HOSPITAL IN ENGLAND.—The Norwich Hospital is said to be the cleanest and probably the best arranged and healthiest in the kingdom. The museum, too, is a model one; all the preparations are in wall cases with glass doors, and look as clean and fresh as if put up yesterday. The calculi, for which the museum is celebrated, are preserved in flat cases, all numbered and ticketed; it is said to be the finest collection of calculi in England, unless now excelled by the College of Surgeons in London.—*Canada Med. Journal.*

DEATHS IN CHILDBED.—About 3,000 mothers die in childbed annually in England and Wales, which presents an average of nearly eight deaths daily. Probably 1,000,000 women in the civilized world are lost during every generation from causes connected with the perpetuation of our species.—*Lecture of T. Gaillard Thomas, M.D.*

A DESERVED HONOR.—Our townsman, Dr. Frank H. Hamilton, received the honorary degree of LL D. from Union College at the late commencement.

INTENSE COLD.—Sulphocyanite of ammonium dissolved in water, it has recently been discovered, will produce an intense degree of cold. Many salts, more especially salts of ammonia, lower the temperature of water while dissolving, but no compound produces this effect in so marvellous a manner as sulphocyanite of ammonium. In one experiment, 231½ grains of this salt dissolved rapidly in 74 pints of water, at a temperature of 73 degrees Fahrenheit, caused the thermometer in a few seconds to fall to 14 degrees above zero. The moisture of the atmosphere instantly condensed itself in thin plates of ice on the outside of the glass vessel containing the water.

THE NATIONALITY OF THE LATE DECEDENTS FROM SMALL-POX IN SAN FRANCISCO.—From the *Pacific Med. and Surg. Journal* we learn that the number of deaths from small-pox during the late epidemic amounted to 505. 162 of the decedents were born in California, and 123 in other portions of the United States, while 50 were born in the German States, 26 in France, 25 in Ireland, 32 in China, 13 in Mexico, 3 in Italy, and the remaining 71 in various other countries.

AN EXTENSIVE MEDICAL PRACTICE.—A physician, residing near Malin Head, in the northernmost point of Ireland, has a practice embracing an area of fifty-seven square miles, having a population of 10,000. Sometimes for forty-eight hours together he cannot find time either to eat or sleep.

THE POPULARITY OF SCANZONI.—This distinguished teacher is a great favorite among his patients. For two visits to the Empress of Russia, during one of which he was only present in case his aid might be called, he received some thirty thousand dollars in gold, besides a residence and a handsome equipage. He has refused a dazzling offer from Baden Baden, as it would remove him from his school at Würzburg.—*Vienna Corres. Western Jour. of Medicine.*

THE HOSPITAL AT WURZBURG, KINGDOM OF BAVARIA.—This immense structure covers more than two solid squares. Two and a half millions of dollars have been spent in its endowment; consequently, the following learned scholars and teachers are secured for all time: *Kölliker* on microscopic anatomy, *Bamberger* on internal medicine, *Recklinghausen* on pathology, and *Scanzoni* on obstetrics.

ABORTION DEPOPULATING THE AMERICAN PEOPLE.—Were it not for foreign immigration, and the births arising therefrom, the States of Massachusetts, New Hampshire, Connecticut, and Rhode Island would, in all probability, be depopulated in less than a century. The fact exists that where one child is now born in New England, from four to five were born some twenty-five or thirty years ago.—*The Medical Archives.*

THE USE OF THE PERFORATOR.—Dr. Maughs, in a recent paper on "The Use and Abuse of the Obstetrical Forceps," read before the St. Louis Medical Society, stated that the slaughter of the innocents under Herod was but a trifle compared with those who have fallen victims to the perforator.

AN UNFORTUNATE, BUT LIVING MAN.—A correspondent writing from Putnam, Ohio, (*Medical and Surgical Reporter*) says: We have a man here who has broken both arms, four ribs on one side and two on the other, both ankles out of joint, one leg, jaw-bone, and both collar-bones broken, and has lost his sight, all entirely by accidents, and is still able to be about.

A medical man of that section should write up the history of this case for publication in a medical journal.

MEDICINAL APPLIANCES ON SWEDISH RAILROADS.—In Sweden, every railroad train has a complete pharmacy and a competent medical staff, so that in case of accident the wants of the wounded are immediately attended to.

NEW YORK STATE INEBRIATE ASYLUM.—Since the 1st of May, 1867, 228 patients have been discharged from this Asylum, situated at Binghamton, N. Y., which is conducted judiciously by Dr. A. Day. 113 permanently reformed, after a single probationary trial; 11 have fallen after a first trial, and 4 after a second; but these have overcome the habit of intemperance by returning to this institution. Dr. Day thinks that at least one-third of the remaining sixty-eight—of whom there are no certain tidings—have reformed. 25 are set down as failures; 3 were discharged on account of insanity; and only 4 died.

PERSONS STRUCK BY LIGHTNING IN FRANCE.—Statistical returns in France show that between the years 1835 and 1863 6,714 cases were registered of persons struck by lightning. Of these 2,238 were mortal. During the above period the maximum of accidents by lightning rose to 111 and the minimum fell to 48 annually. Women only figure for 26 per cent. in the number of casualties.

INTERMITTENT FEVER CURED BY CARBOLIC ACID.—Dr. Jessier (*Boston Med. and Surg. Journal*), at the Mauritius, claims to have cured intermittent fever by phenic (carbolic) acid, in a patient with whom quinine had failed. Three-fourths (¾) of a grain of the pure acid dissolved in twenty drops (20) of water were injected beneath the skin.

MM. Jessier and Barrant believe that intermittent fever is due to the presence in the blood of a microscopical ferment—vegetable or animal.

THE CEREBELLUM OF THE INSANE.—Dr. Meynert stated at a recent meeting of the Vienna Society for Psychiatria and Forensic Psychology, that insane brains had more cerebellum, proportionally, than sane; and that insane females had more than insane males.

LADY DOCTORS IN SWEDEN.—The Swedish Government is going to establish a Medical College at Gothenburg, where ladies of the age of seventeen and upwards may go through a complete course of study, lasting three years, and including clinical and anatomical lectures. The diplomas obtainable in consequence will give them the right to establish themselves as physicians in any part of the kingdom.

TREATMENT OF MALIGNANT PUSTULE.—Dr. Caspar, of Stassfurth (*Deutsche Klinik*), has administered liq. ammoniæ causticæ in several hundred cases of malignant pustule, and reports that the only instance of death was that of a woman far advanced in pregnancy, who vomited the remedy as often as administered. He gives to children from one to three drops, to adults five drops, in sweetened oatmeal gruel, every hour by day and night.

Dilute liq. chlorini was applied to the ulcer in these cases, but little importance is attached to the application. The treatment is continued until the inflammation in the neighborhood of the ulcer ceases to spread.

AMERICAN OPIUM FROM VERMONT.—Mr. C. Wilson, of Monkton, Addison Co. Vermont, (*Journal of Pharmacy*), sowed after the weather was settled, last spring, the seed of the opium poppy (*Papaver somniferum*), over six and a quarter acres of land—prepared as for a garden—in which the plants grew vigorously, and about the middle of August the capsules attained their size. The collection of the juice was commenced at this time and continued until the first of September. Six hundred and forty pounds of this opium were obtained from this six and a quarter acres, being one hundred pounds to the acre, for which he obtained prices varying from eight to ten dollars per pound from druggists and physicians in New England.

This new opium yielded 6.25 per cent of morphia. Prof. Proctor, Jr., thinks that by reducing the quantity of the extract, so that the pure juice of the capsules may bear a larger proportion to the gross amount produced, the opium might be made to yield 10 per cent. of morphia.

THE EFFECT OF STIMULANTS.—Professor Liebig says, in his lecture on food: As to the effect of coffee, tea, meat-broth, tobacco, and the betel-nut on the vital processes and on the health, we have till now but suppositions. What we know with certainty is, that they are not nutritive substances, or that they do not contain them in such quantity that they—with the exception of alcoholic drinks, which also act as heat-giving matter—can be taken into account when considering the subject of nutrition. Carnivorous and herbivorous animals live without them; and it would seem, therefore, that they are not a necessary for man. Inexplicable, however, it still is, that among all the people of the old and modern world, among all the wild tribes, enjoyments of this sort, of the most different form and nature, are to be found, and that these enjoyments have grown into necessities.

The poorest factory workman imposes on himself privations in his food and other necessaries, in order to spare a few pence for tea, tobacco, or alcohol. There must be a deeper cause for this than mere custom. If by the word health we understand only the normal state of the organs and their right interaction, then all stimulants which disturb this state are hurtful. But the idea of health comprises something more. If we take a family of ten persons living in the same house, who breathe the same air, drink the same water, and enjoy the same food, their bodily state is still not the same. If in the place where the family lives an infectious disease breaks out—the cholera, for example—two individuals possibly of the household will be attacked by it, and often not those of whom we say, "They are of weak constitution," but just the stronger ones. If we overlook the newest theory, that attributes most diseases to a fungus which finds in the body of the ailing person a fitting soil for its propagation, and in others, who remain healthy, the contrary, and seek for

al term to express whatever is injurious—change perature, &c.—it is clear that healthy individu- se a greater resistance to the harmful influences e weakly; those who remain well greater than ho are attacked.

resistance may be compared to a force, the de- which depends on the strength of one party weakness of the other. We must not confound the force on which depends the circulation of the or the movement of the intestines, or the power k, but it would seem as if we ought to look for e nervous system.

timulants, and herein is but one opinion, act on rves, and many of them, perhaps, in suchwise ey temporarily increase the power of resistance outer disturbing influences. No one of them compared to another in its effect, for each acts, ng to the state of the body and to the quantity, wn peculiar way: many may serve quite simply w us the state of things within. Of this inner an knows nothing. Under certain conditions a felt inwardly without the temperature of the iminishing on that account, and warmth is expe- l without there being an increase of heat. These ons point to a state in which certain nerves off more warmth than they receive, or receive han they throw off. The sensation serves only ounce an inequality, which, if it be slight and g, can, by various stimulants, be easily removed. e lasting, it is looked upon as a symptom of ill-

p of meat-broth has often a strengthening effect, ecause its component parts generate strength there is none, but because it so acts on our that we become conscious of the existing h, and sensible that this strength may be dis- of. The feeling of weakness, which is again an of the nerves, then decreases or vanishes. In of real weakness the broth does not give th.

M IN DIABETES.—There is nothing novel in the opium in diabetes, but there is something new mode and results of its exhibition as portrayed ase which Dr. Pavy brought before the notice of ndon Clinical Society at its last meeting. The e was that of a female, aged sixty-eight, who parently cured by the narcotic, without restric- to food. The patient was placed in May upon dinary middle diet of the hospital, which included wance of bread, potatoes, and beer. She was dered four ounces of brandy, and two bottles of ater per diem; and this mode of living was con- as long as she remained in the hospital. The given was in the form of a pill, three times a nd the dose was gradually increased. At the the quantity of urine was 100 oz., the specific 1,040, the quantity of sugar per oz. 32¾ grains, he amount of sugar for the twenty-four hours, grains. Within three weeks the quantity of administered was raised to ten grains and a half m. It was then suddenly discontinued on ac- of a greater degree of drowsiness than was desir- eing produced; but in a few days it was recom- d, and this time, being more gradually increased, rne without producing any sign of disturbance. gar disappeared on July 31st, and remained ab- long as she continued in the hospital—namely, ctober 28th. At the time the sugar disappeared, tient was taking nine grains of opium per diem. s afterwards still further increased to twelve and then gradually diminished until October

17th, when all was taken off, the patient· the remaining time taking no medicine, and g no sugar. Dr. Pavy brought some urine, fresssed, to the Society, and this, upon being teste the cupro-potassic solution, was seen to be free igar. Dr. Pavy thought there was still much tearnt about the extent of the power of opium rent cases. His belief was, from the case whichl the basis of his communication, and other expthat he had had, that it would be found sufficitself in many instances, amongst elderly subjects the disease was observed to assume its milde, to check the elimination of sugar. In young adle-aged subjects, however, where the diseaserule assumed a much more severe character, his ence was that, to obtain a similar effect, the resdiet must be conjoined. The success of the tit is interesting, and we have thought it deservecial notice.—*Lancet.*

Graily Hewitt on Obstetric Practice.—aily Hewitt, on taking the chair as President ondon Obstetrical Society, made the followinks:

"I think it well, gentlemen, to refer forient to a matter which has an important bearingtetric science and on obstetric practitioners. hat relegation of obstetric practice to another,not say inferior, order of practitioners, which hadvocated in certain quarters. In the interour science, and not less in the interests of the we cannot refrain from taking a decided posithis matter.

"The practice of obstetrics requires eduoigh mental training, and a wide range of medowledge, not less than tact and judgment.ical strength and fortitude, also, are qualities whnot be dispensed with. In the skilful obstetric mer we find a physician as well as a surgeon. e is ordinarily equal to the accomplishment of turient process, but we all know how mucland skill are required when nature fails in her ons, and how thankfully and appreciatingly the prelcomes the means of relief from her troubles.implicity of the natural process has induced th in some quarters that for this department of fession the midwife only is required. The fa all goes so smoothly in the majority of instands support to this fallacy; but we, who know expectedly difficulties sometimes occur, requreat skill in order that they may be surmountnot trust our own wives and daughters in any lful as well as practised hands. It may be a of opinion, but I cannot refrain from expressinglief that the great emergencies of obstetric pcan never be adequately met by anything shortculine intelligence. Undoubtedly the requi of the community are greater than we can anes and in all places supply, and therefore midwist, under many circumstances, be necessary; bertain that a skilful medical man will be alwght for when a real difficulty occurs. Anothe of this question also must not be lost sight of.mployment of midwives, many of them quitaled and uneducated, has been productive of ·ith which we are all too familiar. It is indeedion whether it be not the duty of this Socieake steps for obtaining some legislative enactmeeck the license which exists in this particular."

These remarks are thus emphatically ted upon editorially by the *Lancet:*

"Dr. Graily Hewitt seems to us to be, onole, a little afraid of—at least he avoids—the geestion which lies beneath all possible differences of opinion on such points as these. Are women, even if medically educated, fit to be obstetricians? We think decidedly that they are not; and we think so on the broad ground of their imperfect sympathy with one another's sufferings, and of the excitement and jerkiness with which, especially if tired or irritated, they perform any kind of mechanical work. How would an ordinary woman proceed, after sitting up half the night, to remove a placenta? How would she, if middle-aged, and single, and very proper, sustain the spirits and rouse the flagging power of an unmarried mother? The great emergencies of midwifery are like the pounds, and may be left to take care of themselves. We think that teachers often devote too much time to them, and neglect what is of daily importance—the management of natural labor and of the lying-in room. For this management we think women are not well calculated. Their unfitness does not amount, of course, to absolute disqualification; and it might be rendered less obvious by training and experience."

Management of Acute Rheumatism in a Horse.—Alfred Withers, M.R.C.V.S. (*The London Veterinarian*), recommends the alkaline treatment in acute rheumatism of the horse. He mentions a case in which Pot. Carb., Sod. Carb., Pot. Nit., and Pot. Iod. were given daily. Of the first and second he commenced with ʒ j. of each, increasing it to ʒ iij.; of the third ʒ ss., increasing it to ʒ ij.; of the Pot. Iod. he gave ʒ iij. from first to last. After a week of this treatment the horse walked round the box—when first seen he lay on the ground moaning piteously for most of the time—and seemed perfectly free from pain. At the end of a fortnight, the swellings had quite disappeared from one fetlock, and nearly so from the other. The medicine in this case was given in the form of balls, as many as six being given in the twenty-four hours.

A Brass Polish.—Rub some bichromate of potassa fine, pour over it about twice the bulk of sulphuric acid, and mix this with an equal quantity of water. The dirtiest brass is cleaned in a trice. Wash immediately in plenty of water, wipe it, and rub perfectly dry and polish with powdered rottenstone.—*Drug. Circ. and Chem. Gazette.*

Glyco-inosine.—A preparation, under this name, is sold in Europe for sweetening acidulous wines, at the rate of one thaler per pound. On examination it proves to be common air-slaked lime.

New Publications.

Books and Pamphlets Received.

A Practical Treatise on Perimetritis and Parametritis. By I. Mathews Duncan, Clinical Lecturer on the Diseases of Women in the Royal Infirmary, Edinburgh. New York: Wm. Wood & Co. 1869.

A Manual of Elementary Chemistry, Theoretical and Practical. By George Fownes, F.R.S. Tenth Edition. Edited by Robert Bridges, M.D. Philadelphia: H. C. Lea. 1869.

The Principles of Naval Staff Rank, and its History in the U. S. Navy, etc. By a Surgeon in the U. S. Navy.

Nomenclature of Diseases, adopted by the Royal College of Physicians of London. London: W. I. & S. Goldbourn. 1869.

Physiological Arrangement of the Cranial Nerves. By Edward Reeves, M.D. Cincinnati: R. Clarke & Co. 1869.

Original Communications.

MALT LIQUORS AND THEIR THERAPEUTICAL ACTION.

By BRADFORD S. THOMPSON, M.D.,

NEW YORK.

While viewing, in 1867, the extensive brewery of Messrs. Barclay, Perkins & Co. of London, founded by the celebrated Henry Thrale, the friend of Dr. Johnson, many facts relative to the manufacture of malt liquors were gathered from the intelligent manager. To visit this mammoth depôt of trade requires a card from some member of the firm, which, however, is readily granted to every foreigner.

We are informed by historians that the ancient Egyptians prepared a drink from barley, not much inferior to wine, and called *pelusian*, from the name of the town Pelusium (now called Belbais), the burial-place of Pompey the Great, near the mouth of the Nile.

A beverage from corn was produced by the ancient Romans, which they called *cerevisia*, the gift of Ceres. It was intoxicating, and Theophrastus calls it the *wine of barley*.

The name of ale among the Britons was derived from the Danish *oela*. In Wales, it is called *ceoriv*. The English word, *beer*, is the Saxon *bere*, barley, a variety of which is still so called in Scotland. The Italian *birra* and the French *bierre* are undoubtedly derived from a similar source—the Hebrew word for corn, pronounced *ber*. *Ale* and *alehouses* are mentioned in the laws of Ina, king of the West Saxons, in 728.

Although other grains are capable of producing beer, barley is deemed the fittest and is preferred to them all. The superiority of barley to other grains consists in its greater affinity for moisture and increase of volume when steeped in water, which indicates its yield of malt.

Malt is barley which has been subjected to a process of artificial germination. This is accomplished by repeated washings and steeping at properly regulated temperature, until the grain is expanded in the same way as the moisture and heat of the earth prepares it for the growth of the plant. This process requires nice management, as from too short or too long a time in the steep, or if the temperature is not properly regulated, the quality of the malt is impaired. An essential requisite is a good knowledge of the grain. During the process of malting, decomposition takes place, and sometimes an exceedingly offensive odor is given off, indicating a total unfitness of the malt for the production of beer; by the application of "correctives," the *couch* is rarely or never discarded. The malt is kiln-dried when germination has advanced to the requisite degree, in order to stop all further growth, and kept for future use.

The malt is distributed into three sorts, according to the color and degree of drying, viz.: the pale, yellow, and brown or black. The *pale* is produced when the temperature in drying has ranged from 90° to 100° F.; the *yellow*, when it has been treated to 120°; and the *brown*, when the temperature has been raised to from 145° to 165°. The *black* malt, which is exclusively used for making porter, is heated until it is partially charred.

Good malt contains about 66 per cent. of soluble extract, and 34 per cent. of insoluble matter.

To ascertain the proportion of soluble extract and insoluble matter in malt, is, to take a certain quantity and grind it to powder, weigh it, and divide into two equal parts. Put each of these portions into a cup, expose one to the temperature of boiling water, by setting the cup in it for half an hour, and whatever moisture there may be in the malt will be expelled, and known by loss of weight. To the other portion of malt add about six times as much cold water as there is malt, and expose it to a steam bath, with occasional stirring for an equal length of time with the first. Then strain it, and when all the fluid or wort has drained away, wash carefully the residue with boiling water, dry and weigh it. The weight of this represents the insoluble matter, and by adding it to the amount of loss by expelling the moisture in the other portion, and deducting the aggregate from that of the weight of the whole at the beginning of the experiment, the remainder will represent the amount of soluble extract in the sample.

This, as before stated, should not average less than 66 per cent. But if evaporated to dryness, the soluble extract would be converted into gum and sugar, in which process the elements of water chemically combine and increase the weight to about 72 per cent.

A quarter of malt is estimated at 324 pounds; this reduced by evaporation to the measure of a barrel—36 gallons—becomes, in the language of the brewer, 87 pounds per barrel, because it is 87 pounds heavier than a barrel of water. Twenty brewer's pounds indicate 52½ pounds of saccharine extract, or a barrel of *wort*.

The peculiar properties of *wort* are the result of the action of heat and moisture on malt. If, therefore, the quality of the malt is not good, or its "mashing" is not carefully attended, the quality of the wort will vary accordingly. Dextrine and sugar are the solid constituents of wort, and the relative proportion of these should have reference to the period of consumption. Sugar easily ferments, and rapidly, while dextrine ferments with difficulty, and slowly. Wort containing a large proportion of sugar is preferable for quick consumption, and, on the other hand, the dextrine should predominate if the beer is to be kept long. The production of good *old* beer is owing to the difficulty and slow fermentation of dextrine. When the whole of the sugar in wort is decomposed and converted into alcohol, the slow fermentation of the dextrine continues to evolve carbonic acid and keep up bitterness and vitality.

The proportion of dextrine and sugar in wort is determined by testing for either or both. Add an equal amount of alcohol to a certain quantity of strong wort, and the whole of the dextrine will be precipitated in a dense coagulum; a scale tube may be used to indicate the quantity.

To ascertain the proportion of sugar in wort, take 50 grains of sulphate of copper, 100 grains of bitartrate of potash, and 400 grains of carbonate of soda, and dissolve in half a pint of boiling water. Add 100 grains of the wort to be examined to this solution, and a reddish-colored precipitate will be thrown down. Collect and weigh this, and every three grains indicate one of grain grape-sugar in the 100 grains of malt used.

The conversion of the dextrine of wort into sugar may be effected by extending the mashing process, or by subjecting the wort for a few hours to the temperature of about 170° F. Hence the necessity for maintaining an even temperature for wort, in order to preserve the relative proportion of sugar and dextrine necessary to produce a uniform quality of beer.

The varieties of beer depend both upon the difference in their material and the different management in their production.

The color depends upon the color of the malt and the duration of the heating process. *Pale* ale is reduced from the steam or sun-dried malt, and the young shoots of the hop; *yellow* ale from the mixture of the pale, yellow, and brown malts; and the *brown* from the kiln-dried and carbonized malt mixed with the pale to give it body. *Porter* used to be colored and flavored with burnt sugar, but at present highly torrefied malt is generally used, and of this there are several varieties, the brown, imperial, and black, but chiefly the last.

The fermentative quality of porter is the same as that of ale, saccharine, and is derived from the pale or amber malt mixed with the flavoring and coloring malt.

The malt liquors in general use in London, previous to the year 1790, were ale, beer, and two-penny, and it became a custom to call for a pint of "*half-and-half.*" This consisted of one third of each—or a pint and a half tankard, containing half a pint of ale, half a pint of beer, and half a pint of two-penny. Subsequently it was the practice to call for a tankard of *three threads*, which meant the same thing. This gave the drawer the trouble of turning three cocks for a tankard of beer, and to avoid this inconvenience a brewer by the name of Harwood made a liquor comprising the qualities of the *three threads* combined. This he called *entire*, or entire butt; and as it was very hearty and suitable for laboring men and porters, it obtained the name of *Porter*.

The water used for manufacturing beer has a great deal to do with its quality. Freedom from organic matter being essential to the production of good beer, soft, pure spring-water, which rises from chalk or limestone formations, is the best for the purpose. Lake and river water generally contains vegetable matter, which always imparts a flatness and susceptibility to atmospheric changes, with an aptness to become acid.

It was formerly thought that good porter could not be made without water from the Thames.

But this opinion regarding the proper material for the production of good beer has passed away, and Thames water is now very rarely or never used. When it was considered the only water with which good porter could be made, sulphuric acid was considered a necessary addition to new beer, in order to render it hard. Soda, chalk, and potash were the usual correctives if this happened to be added in excess. These additions had the effect of destroying the organic matter, and *seemed* to be necessary for the production of *old English porter*.

One of the main features of good beer is fine color and transparency. When this is not attained in the outset, attempts to remedy it rarely succeed. Sometimes isinglass is used with benefit. A pound of it will make about twelve pounds of *finings*, and should be cut into small pieces, and put into as much vinegar or hard beer as may be necessary to dissolve it, when it may be diluted to the required measure.

A pint of this solution may be added to a barrel of foul beer, which should be stirred well at the time of addition, and then allowed to rest for twenty-four hours, when, if it is capable of being clarified, it will be found limpid.

Carageen moss is used in Bavaria, instead of isinglass. Hartshorn shavings, fish sounds, ivory turnings, white of eggs, &c., are occasionally used, but they are all inferior to isinglass.

Alum is also used for fining, but it is a dangerous addition, and should never be tolerated.

If good hops are used in sufficient quantity, and due attention has been paid to the selection of other material, no finings will be necessary.

The peculiar flavor of different varieties of pure beer depends upon the skilful use of hops, both in the quantity employed, and the length of time they are boiled in the wort. A pound of hops to a bushel of malt is used by Scotch brewers, for home consumption. But in beer for summer use, or that which is intended for hot climates, the quantity is sometimes doubled. English brewers use more hops and make stronger ales than the Scotch.

The addition of yeast requires the nicest management, next to the proper management of *hopping*. English beer of all kinds was made without hops in ancient times. They were first imported from the Netherlands, in 1524, and introduced into English brewing in imitation of the Flemings. Hops were at first used for their preservative qualities only, and they were for a long time thought to contain properties poisonous to the constitution, and were said to "dry up the body and cause melancholy." An old English author says that "Ale *without* hops is the natural drink of a Dutchman; but of late it is much used in England, to the great detriment of many Englishmen."

Hops serve not only to give beer a bitter aromatic taste, but also a keeping quality. They counteract its natural tendency to become sour, an effect partly due to the precipitation of the albumen and starch, by their resinous and tannin constituents, and partly to the anti-fermenting properties of their narcotic principle, *lupuline*, oil, and resin. For these purposes there is no other substance that can take the place of hops, and any substitute for them is an adulteration.

Lager-bier.—No country in the world has paid so much attention to beer-making as Germany. From time immemorial the Germans have been peculiarly a beer-drinking people. The most celebrated of all places for good beer is Bavaria, where the people are so much attached to their favorite beverage, that they regard its exclusive use as a special mark of gentility, and they look upon the use of distilled liquor, in ever so great moderation, as immoral and vulgar, disqualifying those who use it for decent society. Bavarian beer is regarded as the standard of excellence throughout the German States, and large premiums were formerly given to those who manufactured beer nearest to that degree of excellence which characterized the Bavarian, viz., which, though not strong nor highly hopped, will keep six months in the casks without becoming sour.

The great secret consists in fermenting the wort at an extremely low temperature, by which the acetous fermentation is avoided, and all the nitrogenized matters are completely separated by exposure to the air, and not by the sacrifice of the sugar in the wort.

The vaults in which German beer is kept are all under ground, and constantly kept cold, yet differing according to the variety of beer required.

There are two sorts of Bavarian beer, the *winter* and *summer*. The former of these is brewed in October, November, March, and April; and it is frequently sent out in barrels in six or seven days after fermentation has been completed in the tuns, and though at first it may be, and frequently is, quite turbid, it will in a short time become perfectly clear, and may be drawn and served out in less than a month. It is light, and usually retailed in tankards, and known as *schenck-bier*, or pot-beer.

The summer beer is lager-bier proper. It is stronger than the schenck-bier, and by careful attention in the tun, it increases in strength in proportion as it loses sweetness. It is brewed in December and January. After the tuns are filled with it, they are placed in cellars with triple doors, with small intervals between

them, so as to admit of one only being open at a time. These are all closed and banked up with ice, and so kept until the following August, when the tuns are opened for consumption. The beer is found as clear as champagne, and strongly impregnated with carbonic acid gas.

Bock-bier is a superior variety of this, very strong, and derives its name from causing those who drink it to prance and tumble about like goats or bucks. It contains a large proportion of sugar and dextrine for its hops, and is very deceptive and luscious. Bock-bier is generally made with Bohemian town-hops, which are considered the finest in the world, and command double the price of any other. Small quantities are sometimes exported to Paris, where they are employed for making a variety of beer which is highly prized for its refreshing qualities.

The lager-bier used in the United States is usually winter-brewed and nearly allied in qualities to the summer beer of Bavaria. It is probably freer at the present time from deleterious qualities than any other alcoholic liquor used in this country.

Constitutional Effects.—The active properties of beer are due chiefly to its two main constituents, *extractive* and *alcohol*.

The changes in barley by malting, nearly double the amount of starch, and treble the amount of gum and sugar. Previous to fermentation, one quart of strong ale contains about three ounces of solid extract, and in the condition of *sweet wort* not less than six ounces. This decomposes according to the degree of fermentation, every pound of solid extract being capable of producing half a pound of alcohol. Hence it is, that those varieties of beer which contain least alcohol are the most nutritious, and contain most extractive. The extractive may be separated by evaporation. A pint of small beer or good porter will yield about one ounce and a half of solid extract. This consists of a mixture of starch, dextrine, lactic acid, sugar, salts, gluten, oil, and the aromatic parts of the hop. Besides the nutritive properties of most of these substances, the bitter principle of the hops gives beer tonic properties, and the alcohol communicates exhilarating and stimulating powers. The quantity of alcohol in different varieties of beer averages about as follows:

Albany Ale	1.067	per cent.
English Ale	888	" "
Scotch Ale	620	" "
Brown Stout	680	" "
London Porter	420	" "
Small Beer	128	" "
Bock-Bier	400	" "
Lager-Bier	350	" "
Schenck-Bier	209	" "

Considering, then, the effect of these qualities combined, beer possesses the property of allaying thirst, nourishing, giving tone, exhilarating, and, if taken in excess, intoxicating. Consequently, we are justified in saying, that for the robust and strong, and for such as lead laborious lives, malt liquors are refreshing, nutritious, and wholesome. For persons laboring under exhaustion, whether owing to an excessive drain upon the powers of nutrition, as in *nursing*, or as in certain diseased conditions, issues, abscesses, &c., beer unites its tonic virtues with nutritious qualities, and becomes under ordinary circumstances highly beneficial. For persons laboring under chronic diseases, or tedious convalescence, and especially for such persons as are accustomed to stimulants when well, it is in many cases a valuable promoter of health. It is inappropriate, and will generally disagree, if the digestive functions are impaired. It does not usually agree well with bilious, dyspeptic, or plethoric persons; such should avoid it.

These properties only pertain to pure *hop*-brewed beer. Any departure from them, therefore, may be deemed just ground for suspected adulteration. When we reflect that there were entered in England for home consumption, in the manufacture of ale and porter, from 1859 to 1868 inclusive, 33,417 lbs. of *nux vomica*, and 32,682 lbs. of *cocculus indicus*, which paid a duty of thousands of pounds sterling, besides quantities of St. Ignatius bean and other deadly drugs, all of us can estimate proximately the amount of poisoned ale and porter palmed off on the imbibers of these beverages.

The effect of the different substances of which *pure* beer is composed is so modified by the combination as to destroy the appropriateness of each one of its constituents. It must, therefore, be considered as comprising the qualities here attributed to it only in a very moderate degree. If highly nutritious food be required, it can surely be found in many more concentrated forms than in beer. And so of its other properties. Water is infinitely its superior to quench thirst, the hops *alone* would be a better tonic, and as a stimulant it is too dilute. Moderate though these qualities be, if applied to well persons, they are unnecessary and superfluous, and generally produce a bad state of the system. The restorative powers of the constitution are generally so modified in habitual beer-drinkers, that they are notoriously slow to recover from wounds and accidents, and infinitely more apt to sink under disease than water-drinkers.

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ON THE ORIGIN OF THE GALL-DUCTS.

By R. CRESSON STILES, M.D.,

OF BROOKLYN, N. Y.

Since the publication of the last report of the Board of Health I have received a number of inquiries respecting the minute anatomy of the liver, and a number of mild objections to the views stated in the same report.

Let it be understood that I have nowhere claimed to have made a "discovery," but simply to have made certain what others believed they had demonstrated, although their opinions have not received the support of the highest authorities in histology. The following passage, from Kölliper's "Handbuch der Gewerbelehre," will show precisely what I have seen and demonstrated before the New York Academy of Medicine, and to a large number of skilled histologists:—

"The teachings of *Budge*, *Schmidt*, and *Andrejevié*, are entirely different, which are, that they believe they have demonstrated, by means of injection, in the interior of the acini, between the liver cells, the finest gall-ducts. According to *Budge*, the gall-ducts suddenly contract at the surface of the acinus to 0.002‴, and fine canals of this calibre extend in the form of a net-work between the liver cells throughout the acinus. *Schmidt's* confused statements may be seen in his work, which, however, is endorsed by Andrejevié, to the effect that he has injected from the gall-ducts a net-work of fine canals of the 0.0013 of a millimetre to the 0.0014 mm. which pervades the entire acinus, and in such wise that the canals never run by the side of the blood-vessels, but only between the cells of the liver. All these canals are perfectly cylindrical, and apparently of the same thickness, yet a *membrana propria* cannot be demonstrated; still Andrejevié regards it as probable."

Kölliper regards these canals (as he has not seen the

preparations of the histologists whose opinion he combats) as formed by the escape of the injecting material. My own observations on the gall-ducts injected by the tenacious bile peculiar to the Texas cattle disease, prove that this explanation is inadmissible.

Kölliper says, furthermore, "*Reichert* and *Henle* have thought of lymphatics. The tenuity of the canals in question would not invalidate this opinion, as *Henle* believes, for the larvæ of frogs have just as fine lymphatics with walls; but the presence of fine canals in the *interior* of the framework of liver cells, which, as far as I understand the development of the liver, makes this opinion entirely untenable."

Should this net-work be one of lymphatics, it is one of lymphatics which empty into the gall-ducts between the acini, into which I have distinctly traced them.

BROOKLYN, June 28, 1869.

CONTRIBUTIONS TO THE CLINICAL HISTORY OF SURGICAL AFFECTIONS OF THE LARYNX.

BY J. SOLIS COHEN, M.D.,

OF PHILADELPHIA.

MORBID GROWTHS IN THE LARYNX.

No. II.

Epithelial Tumor of the Larynx, involving Vocal Cords, etc.; removed by Laryngotomy; Tracheotomy as an initial procedure. Subsequent history.

MR. C. N. H——N, æt. 30, dark complexion, bilious temperament, well nourished, by occupation a merchant, was brought to my office August 2d, 1867, by DR. W. W. GERHARD, of Philadelphia, for laryngoscopal examination, to discover the cause of a chronic hoarseness of several months' duration. The patient's appearance denoted the most complete physical health. He stated that he was a merchant in the interior of the state (Penn), and that his hoarseness began to be troublesome enough to excite his attention some three months previous, shortly after recovery from an ordinary cold; and finding that the difficulty increased, despite the remedial measures instituted for his relief, he had come to Philadelphia to consult Dr. Gerhard, and as that gentleman was unable to discover any cause for the difficulty by the ordinary methods of examination, it was resolved to consult me, in the hope that I could throw some light upon the subject.

On making the examination, I recognized the cause of the difficulty in a greyish-white tumor, of smooth configuration, about the size of a large bean, occupying the whole length of the left vocal cord, and invading the glottis to about one-third of its extent during forced inspiration. The outline of the cord itself was not distinguishable, save at its very posterior portion, where it is attached to the vocal process of the arytenoid cartilage, and the inner portion of the tumor extended into the ventricle.

I demonstrated that the existence of a growth might have been surmised from the heavy, sonorous râle heard upon auscultation of the larynx, though the laryngoscopic examination was necessary to confirm the diagnosis and expose its seat and appearance.

The case being kindly transferred to me by Dr. Gerhard, I then and there immediately began treatment, by cauterizing the growth with a solution of the crystals of nitrate of silver, two drachms to the ounce of water, and repeated this daily for a week, without producing any appreciable effect, favorable or otherwise. On the 30*th of August*, I began the local application of chromic acid, and continued the use of this for a week, without making any impression on the tumor.

Sept 5*th*. Commenced the propulsion of tannic acid upon the growth, and in a day or two some beneficial effect seemed to have been produced, for the tumor had acquired a constriction at its middle portion; but though I applied the tannin twice a day, the tumor soon resumed its previous aspect.

Sept. 10*th*. Applied the solid lunar caustic to the growth, and held it in firm contact for several seconds, until the patient could bear the contact no longer. The immediate effect of this cauterization was a slight hæmorrhage, which soon exhausted itself, and upon examination a few minutes afterwards, the tumor was found to be intensely congested, and to have assumed a racemose appearance, as though small nodules had sprouted out all over it, giving it much the appearance of a deformed raspberry. This treatment was continued at appropriate intervals, and upon two or three occasions, when I found it impossible to cauterize the growth directly in this manner, the pulverized nitrate of silver was deposited upon it by the aid of a bit of sponge.

Sept. 22*d*. On this day, after extensive cauterization by means of a point of fused nitrate, held in firm pressure against the growth for several seconds, there was again some hæmorrhage; and after this ceased, I found that the tumor had become divided by the pressure of the caustic, so as to present a bilobed appearance, a small projecting portion being loosely attached anteriorly. I demonstrated this appearance to Dr. James Collins, who was present at several of my operations. On the following day, this small piece became detached in a fit of coughing, and was expectorated by the patient, who brought it to me at once. I took it to Dr. DaCosta, who kindly examined it under the microscope, and pronounced it epithelioma.

Sept. 24*th*. Began the use of the acid nitrate of mercury, but as it produced no better result than the other caustics, it was abandoned, after a few days' employment, for the chloride of zinc, under the use of which the tumor increased in bulk, and acquired serrated excrescences along its free margin, and by the fifth of October the voice was entirely aphonious.

Treatment was now discontinued for ten days, and on *Oct.* 15*th* I began the use of the galvano-cautery, with an instrument arranged for control of the current on the principle of Mackenzie's laryngeal electrode.

Oct. 21*st*. Succeeded in burning through the growth, separating a small slice, which I subsequently endeavored to seize with the forceps, but failed to so.

Oct. 24*th*. Removed the detached piece, above referred to, with the forceps. This was examined microscopically by Dr. Tyson, microscopist to the Philadelphia Hospital, and was pronounced by him, while unaware that a previous piece had been examined by Dr. DaCosta, to be epithelioma. On the same day, I again used the galvano-cautery, and succeeded in forcing the wire through the body of the tumor, producing a fissure, but was unable to do more.

Oct. 26*th*. Inserted a laryngeal knife into the fissure made by the cautery, and succeeded in sawing off a section, which dropped into the trachea, but was immediately coughed up. Dr. Collins examined this piece for me, and reported granules, stroma, and fibres in great quantity, a few blood discs, but no cancer cells.

I now continued daily to use the knife, and succeeded at nearly every interview in detaching portions of the growth. During this time, the patient spat up during the intervals of scission several raspberry-like nodules, which covered the surface of the growth. This

treatment was pursued for more than a fortnight, during which time more substance was removed than the original bulk of the tumor, and without any positive gain; for the tumor seemed to be stimulated to rapid growth by the treatment.

I now determined to relinquish attempts at removal through the mouth; and stated to the patient that laryngotomy would be a necessary pre-requisite to its removal. For several days I merely examined the growth without employing any topical measures whatever, until *Nov. 25th*, when I took advantage of a national holiday to go to New York with my patient to avail myself of the experience of Dr. Elsberg. Dr. Elsberg urged me to continue to work with the knife, which I resumed on our return, detaching several slices, up to the 5th of December, when, the patient feeling unwell, I advised him to visit his home for a few days' rest. He did so, caught cold on the railroad, and was laid up with an attack of tonsillitis, which delayed his return to the city until the 17th inst. Upon examining the larynx I found that the tumor had become greatly enlarged during his absence, and I also discovered two small excrescences on the hitherto sound cord. I therefore declined to interfere any further through the mouth, and determined upon the operation through the external tissues. At my request, Mr. H. again visited Dr. Elsberg, who then coincided with me as to the necessity of laryngotomy.

On account of the size of the tumor, its unknown extent within the ventricle, its pathological character, the probability of a return, and because I knew that the operation for its extirpation would be tedious and severe, perhaps inducing inflammation sufficient to interfere with comfortable respiration, I decided to perform tracheotomy in the first instance, introduce a tube, allow the wound to heal around the canule, and then perform laryngotomy and remove the growth as a subsequent operation. Another advantage I foresaw from the presence of a tube in the trachea was, that in case of a disposition to a return, any new growth could be attacked from below as well as through the mouth.

Jan. 13th, 1868. Tracheotomy was performed with the assistance of Drs. D. H. Agnew and Grove. Anæsthesia was produced by chloroform, and the patient placed in the horizontal position. The isthmus of the thyroid gland was unusually broad, and its upper border on the left side had undergone calcareous degeneration to a slight extent.

Respiration through the canula was regarded by the patient in the light of a luxury, and he was not aware before its introduction, that his freedom of breathing had become impaired to the extent of which he then became conscious.

Recovery from the operation was prompt; but the lower portion of the wound evinced an obstinate disposition to the formation of granulations in excess, requiring the local application of acids to repress them, and it was five weeks before the parts had become thoroughly cicatrized, presenting a perfectly healthy appearance.

By this time the tumor had grown to such an extent that its free portion presented the bulk of a filbert, filling up the laryngeal cavity to such an extent as would have seriously impeded respiration, had there not been a tube in the trachea. During the interval several small portions of the growth were coughed out at intervals.

Feb. 25th. The main operation for the extirpation of the tumor was performed with the assistance of Drs. Elsberg, of New York, John L. Atlee, of Lancaster, and Levis of Philadelphia; and in the presence of Prof. Gross, Drs. J. B. Brinton, W. F. Atlee and others. Chloroform was administered and managed by Dr. Grove, and the operation was performed with the patient in the recumbent position. The thyroid cartilage was reached in the usual manner, but I could not divide the cartilage with a bistoury and was compelled to use a stout pair of nippers for this purpose, and upon their withdrawal considerable hæmorrhage ensued from the growth having been wounded in the division of the cartilage. The wings of the cartilage were held aside by Cutter's two-tined blunt hooks, the blood was absorbed by small sponges firmly secured in curved forceps, rapidly renewed; and by means of forceps, knife, and scissors, the entire growth was eventually removed, together with the anterior portion of the vocal cord, and the whole lining membrane of the ventricle into which the tumor had extended to a very great extent. This was an exceedingly tedious and tiresome operation, on account of the spasmodic action of the larynx, in which the tumor tore loose from the forceps again and again, and spattered the blood into the faces of all about the patient, filming my spectacles so that I could not use them, and frescoing the ceiling with blood-spots over a large surface. When all the growth had been removed and the bleeding had been staunched, it was recommended to me by Prof. Gross, to take the sharp edge of the steel heel-tap attached to the handle of a bistoury, and scrape out the entire ventricle so as to remove, in his forcible language, "the very atmosphere of the disease." This was accordingly done with great thoroughness; and I feel indebted to the suggestion for much of the success which has followed the operation. The small growths were plucked from the right cord; and the surfaces from which they were torn, as well as the remains of the left cord, and the interior of the left ventricle, were freely cauterized with a solution of the acid nitrate of mercury, one part to two parts of water.

The external wound was closed with wire suture; and two-thirds of a grain of the sulphate of morphia were administered by hypodermic injection.

The patient was placed in a room kept saturated with steam produced from a clothes-boiler upon the stove, in which some towels were placed so as to facilitate the evolution of the steam. The room was kept at a temperature of 85°.

Recovery was prompt, without any febrile action whatever; and in ten days the patient visited me at my office, and after several ineffectual attempts, was able to speak very hoarsely, in a good bass voice, which from that moment steadily improved.

I am satisfied that the presence of the tube in the trachea conduced greatly to my patient's comfort, by securing perfect rest to the injured parts, undisturbed even by the respiratory movement.

A laryngoscopal examination was made on the tenth day after the operation. The left vocal cord was very red; the right cord was congested, but not nearly as red as the other; the left cord was very ragged, and a fibrous layer had spanned the gap left in the cord by the evulsion of the tumor, reaching over and around anteriorly to the forward portion of the right cord to which it had contracted adhesion.

There was again this disposition to the formation of proud flesh at the external wound, which gave considerable trouble. The parts were not interfered with intra-laryngeally, and gradually assumed a more normal appearance, the voice improving from day to day.

I am under great obligations to Dr. Grove, a mutual friend of my patient and myself, for his attentions in nursing the patient after each operation, and the assistance rendered at the operation and the subsequent dressings. No patient I ever had was nursed better

than this one, and his prompt recovery without untoward symptoms of febrile irritation, or difficulty in swallowing, is in a great measure due to this fact; for although we had morphia and veratrum viride at hand, there was no occasion to allay pain, induce sleep, or subdue vascular action; the hypodermic injection immediately after the operation procured a refreshing sleep, and the subsequent administration of a saline aperient completed the internal medication.

Everything progressed favorably within the larynx, and the patient was allowed to breathe through the mouth, the canule being retained in the trachea, but kept plugged with a wooden stopper.

About the middle of March, I began to notice a swelling upon the laryngeal face of the epiglottis at its right side; in a few days I recognized this as a fresh growth, and on the 19th so informed my patient. Dr. J. B. Brinton and others, who examined it with me, were of the same opinion. I first endeavored to cauterize this growth, and afterwards to excise it; but failed, in consequence of my instrument being pushed away by the epiglottis as it closed spasmodically upon the laryngeal entrance, whenever I touched the spot. The growth continued to increase in size, and on the 25th of March I had a consultation with Dr. Elsberg of New York, hoping that his superior skill in manipulation might enable him to accomplish the desired end; bnt the same mechanical difficulty that had baffled me, foiled his efforts also.

I then very naturally concluded to let the growth alone for the time being, and advised a trip to Europe, in the hope of securing some modification of nutrition by change of climate, while at the same time the patient could have access to experienced laryngoscopists in case of any necessity for surgical interference.

I taught Mr. H. the method of auto-laryngoscopy, so that he was enabled to examine his larynx himself from day to day, and could thus notice any change which might occur, as well as gain the earliest evidence of any new development.

I put him upon the internal use of iodide of potassium, six grains three times a day, and directed him to practise the self-insufflation of tannin twice a day, providing him with one of Rauchfuss' instruments for that purpose. He returned home to make arrangements for his departure, and on the 14th of April wrote me a letter enclosing the tumor, which he said he had just coughed up after having propelled the tannin into his larynx; there was a very slight hæmorrhage. He represented his health as excellent, his throat well, and that he had been able to wear a shirt collar suitable for a young man for several days.

The iodide of potassium was continued by my advice, as also the daily use of the tannin powder; and on the 23d of May, in excellent spirits, with a good voice, almost natural in clang, and sufficiently audible for all necessary purposes, my patient sailed for Liverpool. At this time there was no vestige of the growth on the epiglottis; the left cord was still intensely red, the fibrous band had thickened, the border of the ventricular fold was irregular, but the sharp edges were rounded off, and there were here and there two or three projecting portions, the result of cicatrization, which I warned my patient not to allow to be imposed upon him abroad as new growths.

The record of the patient while abroad is condensed from notes kept for me by himself, and from one or two letters addressed me by the physicians whom he consulted from time to time.

Becoming sea-sick in a day or two, he neglected to take his medicine, pot. iod.; and when he got over this, determined not to take any until he saw a physician, as he felt too good to take any medicine. He was examined in June by Sir Duncan Gibb, of London, who saw nothing amiss but the shreds of membrane about which I had cautioned him. His voice was very good, and his health excellent until the latter end of June, when, being at Paris, and feeling somewhat enfeebled, he consulted Dr. Fauvel, who ordered him inhalations and draughts of the sulphurous waters at Enghien (where the Dr. has an inhalatorium), which treatment was kept up for several weeks. At first he remained in the inhalatorium for half an hour, breathing the nebulized spray, and subsequently for an hour each day. In addition to this a glassful or two of water was drunk after each inhalation.

Dr. Fauvel caused an aperture to be cut into the convex portion of the complete canule I had placed in the trachea; and on the 4th of July a fold of membrane became caught in this fissure, so that Mr. H. could not draw it out to cleanse it, as was his daily habit. He cauterized this with the solid nitrate of silver himself, night and morning, before a mirror, through the external opening for four days, when the fold of membrane sloughed off; when, having taken the tube out, Dr. Fauvel directed him to keep it out and let the aperture in the trachea close up, which it did promptly in a few days. He was then placed on the use of chlorate of potassa lozenges. On the 4th of August he left Paris "all right."

Sept. 3d. He was examined by Prof. Tobold, of Berlin, who informed me through one of his pupils, Dr. Edward Todd, of Conway, Mass., who had been one of my own students, and had seen the case frequently in my office, that he saw no evidence of morbid growth old or recent, but that there was a generally congested state of the larynx, which led him to counsel the local application of a solution of nitrate of silver.

Mr. H. returned to America in the latter part of December, and on the 7th of January of this year, or about eleven months after the operation, called upon me to report progress.

I made a very careful examination of the laryngoscopal appearances, and made a drawing to place with my other sketches of the progress of this interesting case. The right cord appeared perfectly healthy, a little congested and compressed, and the ventricular fold above it was turned in toward its posterior portion, as if drawn in by cicatricial tissue. The left cord (which had been the seat of the growth) was very broad, of a deep red color, irregular in outline, and attached for a line anteriorly to the cord of the opposite side by a broad, white fibrous band, thus shutting off the glottis anteriorly to that extent. The glottis has been drawn by cicatrization a little to the left (the injured) side, so that the lines of incision into the larynx and into the trachea appear a little to the right. The external cicatrix of the first operation is pale and small; that of the second operation red and corrugated. The patient's weight had increased eleven pounds. The voice was good. So good that Mr. H. stated that he believed that old friends who had not seen him for several years, could recognize him by his voice, its timbre being so natural. Of this I have my doubts, but cannot judge, as I had no acquaintance with him previous to his coming under my professional care. He has a very limited range of pitch and tone.

The patient brought me in a small vial of glycerine, a roundish pediculated mass, about a line and a half in diameter, looking like a polyp, which he expectorated while travelling. I gave this to Dr. Tyson for microscopical examination, and he wrote me as follows: "I have examined the 'plug' and find it containing some scaly epithelium, but for the most part composed of

small round cells, about the size of a white blood or mucous corpuscle, in some instances quite granular, again quite smooth. On the addition of acetic acid many of them revealed two or three nuclei, such as are brought out in mucous corpuscles. Though they are much altered by the long maceration in glycerine, I should say they most nearly resemble these bodies, and that the 'plug' is therefore probably of mucus."

There is something about this plug I cannot understand. My patient states that Dr. Fauvel noticed a new growth before he left Paris; that when in Berlin he expectorated this substance, he posted back to Paris immediately. Dr. Fauvel examined him and said at once, "that tumor is gone," when he showed it to him in the vial.

From a letter and some loose memoranda he brought me from Dr. Fauvel, it would appear that there had been several excrescences on the vocal cords which had disappeared under the treatment narrated; and that either one of these or a fold of membrane had got caught in the opening made in the canule. These excrescences, I am inclined to believe, which were dissipated by the inhalations of sulphurous waters, were some of the cicatrized shreds of which I cautioned the patient before he left the country.

After remaining at home a few weeks Mr. H. began to feel unwell and determined to go to Florida for the remainder of the winter, inasmuch as the climate approaches that of Italy, where his health had been at its best. I examined him on the 16th of February. His larynx was in the same condition as at the last report; the congested condition having obstinately persisted throughout. The next day he departed on his trip, carrying with him his auto-laryngoscope and a solution of extract of conium in water, and a quantity of tannin, for use by nebulization or insufflation as required.

May 3*d*, 1869. Mr. H. again visited me on his return from Florida. He had had a pleasant time, was never in better health, had no occasion to unpack his medicine, had gained twenty pounds more in weight, and was in negotiation for a plantation to raise opium and castor beans; having concluded to settle in the country, as the climate suited him better there than anywhere else. His larynx was in the same condition as when I saw it last, a good deal congested, which the patient attributed to the fatigue of several days' continuous railroading.

I have refrained from reporting this case until sufficient time should elapse to enable me to furnish a good clinical history of the operative procedures. It has certainly been most satisfactory in its results. It is reported in detail, extending over nearly two years, as a good representative case before and after operation, and one in which the patient offered his physician every opportunity for study that was desired.

It is rare that such a gauntlet of treatment is run through the various caustics, in a single case, and I never expect to submit another patient to the same treatment; but the desire to succeed without an external wound was so strong with the patient, that time being a secondary matter, he desired me to make every attempt to avoid it that was available.

There are several points of interest in this case to which reference will be made in the remarks with which it is intended to conclude the present series of papers.

Vaccination in New York City.—During the month of June, 1869, sixty Medical Inspectors, under the authority of the Board of Health, vaccinated over 40,000 persons.

Original Lectures.

REMARKS ON THE TREATMENT OF DEFORMITIES ARISING FROM THE CONTRACTION OF THE CICATRICES OF BURNS,

MADE BEFORE THE NEW YORK MEDICAL JOURNAL ASSOCIATION.

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Part I.

It is a fact well known to the medical profession, that the cicatrices which result from the healing of burns have a strong tendency to contract, not only during the time when cicatrization is taking place, but for a considerable period after the healing process has been apparently completed; and if this tendency be not resisted, the parts which are involved are forcibly dragged into abnormal positions, by which their beauty and symmetry are destroyed, and important functions are greatly impaired or wholly lost. When burns are superficial, not extending more deeply than the epidermic layers of the integument, little or no deformity is likely to occur, and if the parts become distorted or disfigured, it is easy to restore them to their normal condition. But when the true skin and the subjacent parts are involved in the injury, great care is required during the treatment to guard against the occurrence of deformity; and if the treatment be discontinued too early, and the case be left to itself as soon as cicatrization has taken place, great distortion is likely to occur at a subsequent period.

The following are some of the principal malformations resulting from the contraction of the cicatrices of burns. 1. The margins of the orifices of mucous canals or cavities may be drawn asunder, so that they cannot be closed. In this manner, the eyelids may be widely separated, and the eyeball be deprived of their protecting influence, and thus the personal appearance of the patient may be greatly disfigured, and the eye may be exposed to irreparable injury. In like manner, the lips may be parted so as to prevent the closure of the mouth, and the retention of the saliva.

2. The orifices of such canals or cavities may be greatly contracted or entirely closed. In this way, sight or hearing may be impaired or lost, respiration and deglutition may be obstructed, and the evacuation of urine or fæces may be restrained, to the great discomfort or distress of the patient, or to the destruction of life.

3. The features may be dragged into various unseemly positions, giving to the patient a very repulsive appearance. Under this head may be enumerated malformations and morbid adhesions of the nose and ears, and dragging down of the chin towards the sternum.

4. Opposed surfaces of skin may become firmly and closely adherent to each other. Thus the fingers and toes may become webbed, the arms may adhere to the sides of the thorax, and the thighs may become adherent to each other.

5. One or more of the extremities may become fixed in a state of extreme flexion, or of complete or exaggerated extension, or of forced adduction or abduction. These malformations may occur in the vicinity of any of the articulations which allow a considerable extent of motion. But they occur most frequently, and to the greatest degree, in connection with those

articulations which are thinly covered by soft parts, as in those of the hands and feet.

6. The cicatrices of burns may form prominent ridges, projecting beyond the surface of the adjacent skin, constituting a personal blemish, often the seat of painful sensations, and predisposing to cheloid and other degenerations.

Cicatrices following extensive loss of substance from severe mechanical injuries, or from sloughing or phagedenic ulceration arising from constitutional causes, are very apt to assume characters similar to those of cicatrices following burns, and require similar prophylactic and curative treatment.

M. Dupuytren, in his admirable Oral Lectures on Surgery, gives a long catalogue of the special deformities resulting from the contraction of the cicatrices of burns, and of the influence of these deformities on important functions. Among these he speaks of adhesion of the skin of the neck to the thyroid cartilage or the hyoid bone, producing great embarrassment in deglutition, and an incurable hoarseness of the voice. He also speaks of horrible deformity of the mammæ in young girls, preventing the development of these organs at the time of puberty, and rendering them useless for the purpose of lactation. He also alludes to permanent forward flexion of the trunk by cicatricial bands on the anterior part of the thorax and abdomen. He speaks also of cicatrices binding the penis to the abdominal parietes along the linea alba, or laterally to one side of the scrotum. He also mentions a case, in which a cicatrix maintained an open state of the inguinal canal, giving rise to a hernial protrusion, and forming so prominent a band, as to prevent the patient from wearing a truss, until the cicatricial bridle had been divided.

The treatment of cicatrices may be divided into two parts, viz. the prophylactic and the curative treatment. The period for the prophylactic treatment is that which intervenes between the occurrence of the injury which gives rise to the loss of substance, and the completion of the process of cicatrization. The aim of this treatment is to preserve the parts in their normal position, and to resist by all appropriate means the occurrence of deformity. The period for the curative treatment is after the completion of cicatrization, and when deformity has already taken place. The aim of the treatment is to overcome the deformity, and to prevent its recurrence; to bring back the displaced parts to their normal position, and, as far as possible, to restore the normal mobility of the parts which had lost their power of motion.

In order that we may correctly appreciate the principles which are to guide us in the treatment of cicatrices, it will be well to pass in brief review the process by which an extensive loss of substance is repaired, and the continuity of the integument over the affected part is restored. When a considerable portion of skin is deprived of vitality by the action of intense heat, or by other causes, the dead part becomes gradually separated from the living tissues which lie beneath it, and which surround its margin. In the process of separation, it constitutes an eschar or slough, which leaves behind it an ulcerated surface, bathed in pus, from which surface spring up granulations, which gradually fill up the excavation to the level of the surrounding integument, and often project considerably beyond it. As the granulations fill up the space left by the separation of the slough, they gradually assume a denser consistence, and contract in such a manner as to diminish the area of the sore, by approximating its margin to its centre. If the skin be soft and pliable, and connected with the subjacent parts by an abundance of loose cellular tissue, the process of contraction takes place rapidly, the opposite sides of the integument are brought together, and thus the sore is healed without any marked deformity, and without any important disturbance of function. This is illustrated in cases of sloughing of the scrotum, where a very extensive loss of substance is often promptly repaired without any great degree of deformity. But when the skin is hard and dense in its structure, and when it is connected with the parts beneath by a scanty and rigid cellular tissue, the process of contraction takes place very slowly and imperfectly, a long time is occupied in the healing process, which is only accomplished by the growth of new skin from the margin of the surrounding integument. The newly formed skin is produced with great difficulty, it is thinner than the normal integument, and has a much less degree of pliability, being tightly bound to the subjacent parts, and very liable to crack, and to ulcerate or slough. When the skin adjacent to the margin of the ulcerated surface is connected with movable parts, the contraction, which takes place during the healing process, draws in those parts to fill the chasm, and thus gives rise to the various deformities which have been enumerated. The fleshy growth, which fills up the space left by the separation of the sloughs, and which then exerts the contractile power by which the margin of the sore is approximated to its centre, is at first of a soft and spongy texture, with a considerable degree of vascularity, but at a later period becomes hard and dense, and its vascularity is greatly diminished. It is called cicatricial or inodular tissue. Its power of contraction continues for a considerable time after the sore has healed, when no efficient means are employed to counteract it. But when the tendency to contraction is effectually resisted, the tissue gradually diminishes in density, it becomes soft and pliable, and it loses its disposition to contract. But in order that this desirable result may be accomplished, the treatment is often required to be very energetic, and much patience and perseverance are demanded. The most important part of the prophylactic treatment of burns, in guarding against deformity, consists in maintaining the injured parts in a position which will most effectually resist the contraction of the cicatrix in such a direction as will occasion distortion. Thus, in burns of the anterior part of the neck, the head should be bent backwards, and maintained in that position. In burns over the flexure of a joint, the limb should be kept in a state of permanent extension. When the burn is on the side of the limb which corresponds with that of the extensor muscles, as over the front of the knee or the back of the elbow, the limb should be maintained in a flexed position. When a burn involves the axilla, the arm should be supported at a right angle with the side of the thorax. When the sides of the fingers are burned, these members should be kept widely separated, and attached by strips of adhesive plaster to the divisions of a wooden or metallic splint, corresponding with the fingers. In maintaining the limbs in such a position as to guard against the occurrence of contraction and deformity, the principal reliance is placed upon splints, to which the limbs are attached by bandages, strips of adhesive plaster, or straps and buckles. The maintenance of a position which will effectually guard against contraction and deformity, will of course greatly retard the healing of a sore. When the burn is of great extent, and when there has been long continued and exhausting suppuration, and when, notwithstanding the effort to sustain the vital powers by generous diet and appropriate stimulants, the patient seems to be in imminent danger of sinking, it may become necessary

to abandon the attempt to prevent permanent deformity, and to allow the parts to be drawn into such a position as will favor the most rapid completion of the process of cicatrization, or as an alternative, the limb may be amputated to save the life of the patient.

When a burn affects nearly or quite the whole circumference of a joint, and the destruction of the skin is so extensive that there is reason to apprehend the occurrence of a rigid and unyielding cicatrix, the limb should be supported in such a position as will occasion the smallest degree of embarrassment to the patient, if the limb become fixed and immovable. For example, the knee should be in an extended position, or very slightly flexed. The foot should be at a right angle with the leg. The fore-arm should be flexed at a right angle with the arm. The hand should be in an extended and supine position. The different phalanges of the fingers should be extended upon each other and upon the metacarpal bones. In such cases, the process of cicatrization should be retarded, and passive motion should be freely employed, and at short intervals, to overcome, as far as possible, the rigidity of the cicatricial tissue. In burns involving the face, it is extremely difficult, and in some cases impossible to guard against the occurrence of distortion. We have no reliable means of maintaining the features in their normal position, or of drawing them away from the direction towards which the contraction of the cicatrix tends to drag them. Something may be accomplished by the use of strips of adhesive plaster, so applied as to resist the contraction of the cicatrix. It may in such cases be advisable to have the strips of adhesive plaster sewed at one end to the integument whose contraction is to be resisted, and at the other end attached to a bar or ring, from which a cord is to be passed over a pully, and attached to a weight, by which, what Dr. H. G. Davis calls elastic extension is to be maintained. Something may also be done by making incisions through the sound integument on two opposite sides of the injured part, so as to favor the approximation of the edges of the sore, in such a direction as to occasion the least deformity. For example, in a burn involving the upper part of the cheek, and encroaching upon the lower lid, the tendency to ectropion might be greatly diminished by deep vertical incisions on each side of the burned surface, thus allowing the cicatrix to be completed by lateral instead of vertical contraction. In burns of the face, it may be advisable, by means of pressure, to keep the eschar or slough in its place as long as possible, in the hope that the process of cicatrization may take place to some extent beneath it, and with less tendency to contraction than when the granulating surface is exposed. When the eschar has been thrown off, the granulations should be touched with nitrate of silver, as often as they rise above the level of the surrounding skin. By this means the process of cicatrization is hastened, the surface of the cicatrix is rendered smoother, and the tendency to contraction is diminished.

When a burn involves the orifice of a mucous canal, there is a strong tendency to contraction or closure of the orifice. This tendency must be resisted, by keeping the extremity of the canal constantly distended by a tube or cylinder, of ivory, or metal, or other appropriate material, of as large a size as the canal will admit; and this plug must be worn until all tendency to contraction has ceased.

In all cases of burns, in which the healing process threatens to occasion deformity or rigidity of the affected parts, passive motion should be perseveringly employed, until the disposition to contract has been overcome.

The curative treatment of the deformities resulting from the process of cicatrization is worthy of more attention than has generally been accorded to it by surgeons. I am satisfied, by the experience which I have had in the treatment of this class of deformities, that they are susceptible of relief to a much greater extent than is generally admitted by the medical profession. The treatment, however, often requires to be continued for a very long time, and is very irksome and even painful to the patient, and exceedingly troublesome to the surgeon.

When the margins of the orifice of a mucous canal or cavity have been drawn asunder so that they cannot be closed, the deformity may often be in a great measure removed by means of a plastic operation. The first step in the operation consists in the excision of the cicatrix, or its free division throughout its whole breadth and thickness, and the replacement of the margin of the orifice in its normal position. The operation is then completed by filling up the chasm which is left, by means of a cutaneous flap, dissected from the neighboring parts, and twisted on its axis according to the Indian method, or simply glided along without twisting, according to the French method. The choice between these two methods depends upon the condition of the neighboring integument. When there is an ample supply of healthy skin by the side of the cicatrix, the French method is to be preferred. When there is sound integument on both sides of the cicatrix, advantage is often derived from the formation of two flaps, which are approximated to each other, and united in the middle. This method may often be adopted with good results in the reconstruction of the upper or lower eyelid. In the first stage of the operation, excision of the cicatrix is to be preferred to simple division, when the extent of the inodular tissue is not so great as to prevent the chasm which is formed from being filled up by the flap, which is to be transplanted. The result of the operation, when performed in this way, is more satisfactory, as far as the personal appearance of the patient is concerned, the cicatrix disfiguring the patient less than when the original scar had been simply divided. When there is not a sufficient supply of healthy integument on the side of the cicatrix, a flap may be dissected from some neighboring part, and twisted upon its axis, so as to fill up the vacant space. Thus deficiencies of the lower lip may be supplied by flaps from the upper lip, and vice versâ, according to the very ingenious and thoroughly tested method suggested and practised by Dr. Gurdon Buck. Or the deficiencies of either lip may be supplied from the cheek, or those of the lower lip from the neck. Deficiencies of the eyelids may be supplied by dissecting flaps from the forehead, temple, or cheek. In cases in which the extent of the injury and of the resulting cicatrix has been so great as to leave no available integument in the vicinity for supplying a flap, a portion of sound skin from some remote part, as the arm, forearm, or hand, may be dissected up, and transplanted so as to fill the chasm made by the free division of the cicatrix, the member from which the flap is taken being firmly secured by bandages, so as to take off all traction from the isthmus of integument by which the flap remains connected with its original seat, until the proper time arrives for severing the connection, which is usually from ten days to two weeks. This last mode of operating is the Sicilian or Italian method, as practised by Branca in Sicily, and afterwards with greater success by Tagliacozzi in Italy. This mode of operating is by no means as good as the Indian or the French method, but sometimes it constitutes our only resource: in such

cases we must not expect as satisfactory results as when we can avail ourselves of a better method.

(To be continued.)

Progress of Medical Science.

External Version.—Dr. B. C. Riggs, House Physician Bellevue Hospital, reports the following as illustrating the benefit of external version: Ellen P., æt. 35, a native of Ireland, having borne five children, all of whom presented normally, was seized with labor pains at 9½ P. M. April 27th, 1869. Her last menstruation occurred early in July, '68. With the first pains the waters escaped. When she was seen half an hour later, there had been but three distinct uterine efforts of which she was conscious, and these slight ones. The long axis of the uterus was evidently transverse and its walls flaccid. The fœtal heart could be heard most distinctly just below the umbilicus, and the head was thought to be felt in the right iliac fossa. On examining, the right hand and arm were found in the vagina, palm looking forward and thumb pointing to the mother's right thigh. Dilatation of the cervix had proceeded so far that the os would probably have measured two inches in diameter. Chloroform was at once administered, and passing my right hand into the vagina, I introduced all four fingers within the cervix. By manipulations from outside, made by an assistant, the breech was pushed up and the head down, while by the hand in the vagina efforts were made to move the presenting part from the right to the left of the uterus.

The ribs were first touched and were pushed up. Then, by means of the arm which was down, the right shoulder was brought within reach. The arm was then returned into the uterus; and, all my fingers except the index being withdrawn from the cervix, I placed my thumb upon the acromion, and index-finger in the axilla. With the aid of pressure from without upon the head and breech, such motion was imparted to the shoulder that quite suddenly the head slipped into place over the superior strait of the pelvis. In turning the body had so rotated that, although the fœtal abdomen was originally towards the mother's, the occiput now pointed forward. The operation up to this time occupied about ten minutes, and during it only one short and feeble pain occurred. For about two hours pressure had to be continued against the breech before the uterine efforts were sufficiently forcible to cause fair engagement of the head. After this the labor proceeded easily and rapidly to its termination, the head emerging in the right occipito-anterior position. No bad symptoms have appeared since delivery, and the condition of both mother and child is at present entirely satisfactory. Before entering upon the operation a consultation was held of the house staff. All those who were present made examination of the case per vaginam, and all advised the immediate action which was adopted.

The Treatment of Pneumonia.—Dr. J. Hughes Bennett has an article in the *Practitioner* reviewing the restorative treatment of pneumonia, and contrasting the results with those obtained by other methods of treatment, particularly that recommended by Dr. Richardson. Regarding the management of acute pneumonia Dr. Bennett considers the following axioms fully established:

1. The great end of medical practice is to remove the consolidation of the lungs, and restore those organs to their natural condition as rapidly as possible.

2. To this end everything that diminishes vital strength should be avoided, and nutrients administered as early as possible, to favor the cell transformation necessary for removing the exudation from the lungs.

3. There is no relation between the violence of the symptoms or force of the pulse and the fatality of the disease. Young and vigorous subjects suffer most, but almost always recover soonest.

4. The weak pulse, want of reaction, non-disappearance of the pneumonic consolidation, or its appearance during the progress of exhaustive diseases, are the unfavorable signs of pneumonia.

5. Continued exercise or work after the attack; low diet; large blood-lettings; depressants, such as tartar emetic, and sedatives; expectorants, such as squills and ipecacuanha; mercury and violent purgatives, are opposed to the restorative treatment of the disease, and when not fatal, tend to prolong its duration.

6. Small blood-lettings of from six to eight ounces may be used in extreme cases, more especially of double pneumonia or of broncho-pneumonia, as a palliative to relieve tension of the blood-vessels and congestion of the right heart and lungs.

7. Local pain is best relieved by large warm poultices.

8. The true disease, that is, the exudation which has infiltrated itself through the pulmonary tissues and been coagulated, constituting hepatization, can only be removed, first, by its transformation into pus cells; second, by the molecular degeneration and liquefaction of these; third, by absorption into the blood; and fourth, by excretion of the exuded matter in a chemically altered form through the evacuations.

9. These processes are favored by supporting the vital powers: first, by rest in bed immediately after the attack; second, by beef-tea and milk during the febrile period, with a moderate amount of wine, if the pulse be feeble; third, by beef-steaks and solid food as soon as they can be taken, with more wine or a little spirits, if the pulse falter; fourth, by mild diuretics on the seventh or eighth day, to favor excretion by the kidneys.

10. The same pathology and principles of treatment apply to all cases of simple pneumonia, whether single or double, the latter being only modified by the weakness of the patient, when more restoratives and stimulants are required.

11. In complicated cases other treatment may be required according to the circumstances of the case; the pneumonia, however, being always influenced in the manner previously detailed.

The mortality in 153 cases treated on this plan was one death in 30½ cases. This statement includes 35 double and 24 complicated cases. Among the simple cases, single or double, the mortality was *nil*.

Early Extensive Disease of Skeleton.—M. Guéniot recently exhibited at the Société Impériale de Chirurgie, a series of specimens from the body of an infant of 25 days. Almost all the epiphyses had become separated from the bones by suppuration.—*Gaz. Hebdom.* No. 2.

Purulent Ophthalmia of the New-Born Babe.—Dr. Desormeaux, in a recent essay on this subject read before the Parisian Academy of Medicine, presents the following conclusions:

1. Under the name purulent ophthalmia of infants, many different affections are confounded; viz., catarrhal ophthalmia, blennorrhagic ophthalmia, diphtheritic ophthalmia, and finally a special ophthalmia, that of the new-born babe.

2. This last variety is developed in new-born infants

by epidemic influence, and by contagion; in older infants and in adults, it is always the result of contagion.

3. Its pathognomonic symptom is the secretion of a serosity of saffron color, which color is not due to mixture of blood, and which leaves a decided stain upon the linen.

4. This symptom exists only at the beginning of the malady.

5. This malady, whose natural progress is very rapid, will terminate in a few hours in the loss of the eye. If it is arrested, without being cured, by insufficient treatment, it may be prolonged for a certain time; but never gives rise to conjunctival granulation, as does blennorrhagic ophthalmia.

6. It habitually affects both eyes at the same time.

7. The only treatment which is sufficient, is the ocular douche frequently repeated, and followed by the instillation of a weak collyrium.—*Gaz. Hebdom.*

On the Direction of the Uterus in the Adult.—Prof. Panas, of Paris, gives the following as his conclusions from his statistical researches on this subject: 1st. Anteflexion in different degrees is a physiological condition of the uterus in almost half the cases. 2d. The uterus not bent does not occur in more than one third of the cases. 3d. Of all the changes of position or direction of the womb, those backward—retroversions and retroflexions—are the least frequent, and consequently have a greater pathological significance. 4th. Very probably the uterus tends to straighten with growth, beginning from the age of puberty. 5th. Very early menstruation coincides with flexions; whereas, very tardy menstruation is met with when the organ is straight. 6th. Generally speaking, catamenia appear more irregularly in cases of extreme deviations than when the uterus is straight. 7th. The occupation does not seem to exert any influence on the direction of the uterus. 8th. Those flexions and inclinations of the uterus which may be called physiological have this peculiarity, that in more than half the cases they are not considerable.

Asphyxia Neonatorum Treated by Catheterization of the Air-Passages.—Dr. Billman, of Neustadt, reports a case of intense asphyxia in which he immediately used the catheter, without first using those means usually recommended in such cases, such as cutaneous irritation, baths, compression of chest, &c. He introduced a thin male catheter into the larynx of the child, and inspired strongly. With a bubbling noise a thick, viscid, and somewhat bloody mucus was drawn into the opening of the instrument, followed by a short, deep inspiration. Already after four or five repetitions of this method, the respiration became regular, and the child cried. Yet a loud rattling still continued. This rattling disappeared each time after the removal of the mucus by means of the aspirations with the catheter, and the breathing became easy and regular.—*St. Louis Medical and Surgical Journal, from the Aerztl. Intelligenzblatt.*

An Irritation of the Urinary Organs Produced by Santonine and Santonica.—Dr. E. D. McDaniel presents (*N. O. Journal of Medicine*) as his conclusions on this subject: 1st. Santonine is a stimulating diuretic, and, in this respect, is allied, in therapeutic action, to cantharides and spirits of turpentine. 2d. Santonine is an irritant to the urinary organs, and is, in this respect, intermediate, as a tonic agent, between turpentine and cantharides, being far more energetic than the former, and perhaps less so than the latter. 3d. Santonine is anthelmintic and febrifuge, and in these respects is allied, therapeutically, to turpentine, spigelia, and chloride of sodium. 4th. Santonine is contra-indicated in active hæmaturia, or a tendency thereto, and in active inflammation of the urinary organs, or a tendency thereto, and indicated in the reverse conditions—*St. Louis Medical and Surgical Journal.*

Circumcision.—Dr. James Thompson (*Western Journal of Medicine*) has operated upon upwards of a hundred patients for chancres in the prepuce and glans; some for gonorrhœa and gleet. They all occurred in a period varying from four to six weeks, except one who was attacked with erysipelas, and died on the twelfth day. One of the patients operated on had an indurated chancre entirely encircling the prepuce. The prepuce entirely covered the glans, giving the organ the appearance of a pig's snout; he also had gonorrhœa. Cold water dressings were used until after suppuration was fairly established, and then discontinued. As soon as suppuration commenced, the discharge from the urethra ceased; and in six weeks the patient was dismissed with a very serviceable organ. Cases of gonorrhœa were likewise operated on with excellent success. Two cases of spermatorrhœa were also treated by circumcision, one of which was of ten years' standing, with two or three nocturnal and four or five diurnal emissions every twenty-four hours. The first week after the operation he had three nocturnal emissions, but had perfect control over the member during the day, and in a very short time the cure was perfect. He also advises that where persons have long foreskins they should in every case be circumcised.

Oil of Turpentine in Cutaneous Affections.—Prof. Von Erlach and E. Lucke have recently communicated the results of their experience in the external use of oil of turpentine for parasitic affections of the skin, as it acts quickly and upon the whole of the diseased structure. Cases of herpes tonsurans and mentagra are reported, in which a rapid cure was brought about by brushing the oil of turpentine over the diseased surfaces. The same agent has been used in a similar manner in cases of surgical erysipelas, with great success. According to nine reported cases, recovery takes place in about three days. The local application was followed by a rapid disappearance of the eruption, and by an immediate fall in the temperature of the body. The last fact is explained by Lucke as due to a destruction of septic material at the inflamed surface, and a consequent diminution of the general fever.—*Berliner Klinische Wochenschrift.*—*Western Journal of Medicine.*

Sulphate of Anilin.—This agent has of late been used successfully in chorea, hysteria, and in an obstinate case of pain in the foot of long standing, that had resisted all other remedies given, which was finally cured by the administration of ten grains of sulphate of anilin three times a day.

Sweet Quinine.—A report in the *Cincinnati Lancet and Observer* bears testimony to the efficacy of sweet quinine in the following words: "I find I can administer it where I cannot the bitter, and its tonic effect is more lasting and certain; and have given it in cases of debility with very happy results, in two grain doses twice or three times a day. It also acts as a prompt antiperiodic. In a case of tertian fever, where I had used the bitter quinine for some time, but could only check it for a week or two, I gave the sweet quinine in five grain doses three times a day, and there was no return of the chill."

A Mixture of Oxygen and Nitrous Oxide as an Anæsthetic.—Dr. E. Andrews (*Chicago Medical Ex-*

aminer) has recently employed this mixture with satisfactory results. It was used upon a patient with a fatty tumor upon the back of the neck. The mixed gases were administered from a rubber bag, through a silver inhaler so arranged as to allow no admixture of air. In seventy-five seconds the patient was anæsthetized, presenting a sort of pallor of the lips and slight blueness of the veins, but none of the dark asphyxiated flush and labored breathing produced by mineral nitrous oxide. The extirpation of the tumor occupied two minutes, and was accomplished without any consciousness on the part of the patient. The patient recovered her senses in about ten minutes, waking up pleasantly, without nausea or discomfort. The blood from the incision was a little darker than usual, showing that there was not quite enough free oxygen used in the mixture.

THE BLUE LINE IN LEAD POISONING.—Dr. Falot refutes the authors who believe that the blue line along the gums is formed by an accidental deposit on the buccal mucous membrane of lead furnished by dust contained in the air or food, or still more in fluids that have been adulterated or accidentally charged. According to M. Grissolle, among others, the blue line is the livery of the lead-worker, not a symptom of poisoning, but a simple deposit and a sign of the worker's occupation. M. Falot quotes the observations of Beau, Barlow, Gregory Smith, and Lecoq, all of whom observed the blue line in patients undergoing an internal treatment with pills of subcarbonate or acetate of lead; and he gives in addition the reports of some cases of his own, which were gathered in an epidemic of colic in a ship's crew at the Gaboon, the cause of which was lead poisoning. Finally, after having established by experiment the impossibility of reproducing the blue line artificially, by touching the gums corresponding to the incisor and canine teeth of the lower jaw with a brush dipped in acetate of lead, and after having proved that oxygenated water and water sharpened by sulphuric acid, the ordinary reagents of lead, had no influence upon the blue line when it is plainly established, Dr. Falot proves that the line is the result of an elimination of the lead, and indicates by its manifestation that the lead, carried along by the circulation, comes to be deposited in the tissue of the gums, where it forms a combination which reveals its presence by a more or less blue coloration. M. Falot finishes his contribution by representing the blue line as a sign of the penetration of lead into the economy, and he derives the important conclusion for forensic medicine, that its presence may denote lead-poisoning, although an analysis of the viscera may not have revealed the smallest trace of the metal.—*Med. Press and Circular.*

VIRULENT CORPUSCLES.—M. Chauveau, the indefatigable veterinary pathologist, has just placed before the Academy of Sciences of Paris a paper wherein he gives full details of the manipulations by which he succeeds in separating virulent corpuscles from the serum or menstruum, in which they float. He succeeded in isolating such corpuscles from the pus of a pulmonary abscess affecting a horse suffering from glanders. The author transferred the corpuscles to distilled water, inoculated the latter to two animals, and they soon perished with glanders. It would be worth trying whether carbolic acid would not destroy the activity of the corpuscles.

A SOLID INJECTION IN GONORRHŒA.—M. Paillasson mentions in the "*Montpellier Médical*" (May, 1869) his method of curing gonorrhœa. The object of therapeutists has always been to keep the walls of the urethra asunder. Ricord attempted it with tents, Jaquemet and Mallez by introducing powders into the urethra. The author has proposed a syringe made of soft tin, so that it may be rolled upon itself by means of a sort of key, upon which it is made to wind. The substance used is a combination of starch and glycerine, which may be used alone or mixed with astringent substances. The syringe is graduated, and a very small quantity of the creamy injection is thrown in and kept for several hours. The author states that this method has been tried in sixty cases with much success.

TREATMENT OF CHOREA.—Dr. John S. Bristowe, of London, publishes a paper in the *Practitioner*, setting forth his views of the treatment of chorea. He has come to the opinion, after a large experience in that disease, that the patients tend naturally to recover, whether medicines are given or not. He believes that physicians commonly deceive themselves in attributing efficacy to the drugs which happened to be given just prior to the period when recovery took place. He says the same results are ascribed to a variety of totally different remedies, and that he has satisfied himself by numerous experiments that the disease runs the same course without any treatment. He gives a number of cases in support of his views, though it is worthy of remark that nearly all the cases that recovered were treated by arsenic.

SINGULAR AND FATAL HÆMORRHAGE.—Before the Obstetrical Society of London, at a recent meeting, Mr. Hyde Houghton read a paper on a Case of Hæmorrhage fatal in forty minutes. The patient, aged 45, was eight months advanced in her sixteenth pregnancy, and while engaged in hanging bed curtains slipped off the chair and fell to the ground. Profuse hæmorrhage from the vagina at once occurred; and before the author could reach her she had fainted and died. At the post-mortem examination the body generally was found well nourished, but in an exsanguine condition; uterus healthy; membranes not ruptured; placenta attached near the fundus. No trace of coagulum or spot of blood was found in the uterus. The os was occupied by a plug of mucus, which was unstained by blood, nor was there any blood in the vagina. The only trace, indeed, of blood that was found was a thin layer gluing the labia together. The author communicated the case to Dr. Greenhalgh, and that gentleman suggested that the hæmorrhage was probably due to a ruptured varix, and was not at all of uterine origin. And in this opinion the author agreed, although at the time of the autopsy the idea had not occurred to him. It was corroborated, moreover, by learning, as he subsequently did, that the patient had suffered from varicose veins of the thigh and vulva.

ARTIFICIAL PRODUCTION OF EPILEPSY.—Dr. Brown-Séquard has proved by some recent experiments upon Guinea pigs, that epilepsy may be produced artificially not only by section of one of the columns of the spinal cord in the vicinity of the tenth dorsal vertebra, as he had previously demonstrated, but that the same result will follow section higher up. He considers the brain to have nothing to do with the pathogeny of epilepsy. He has removed the cerebrum and cerebellum and the bulb of the Guinea pig, rendered epileptic by partial section of the cord, and has kept up life by artificial respiration, and the epileptic attacks have continued despite the ablation of the encephalon.—*Gaz. Hebdom.*

DILATATION OF PUPIL FROM ABSCESS OF THE NECK.—A patient with a deep abscess of the neck was troubled with a dilatation of the pupil; the abscess was opened, and the dilatation subsided.—*Gaz. Hebdom.*

THE MEDICAL RECORD.

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NAVAL STAFF RANK.

WE have recently received a very cleverly written book upon the "Principles of Naval Staff Rank," by a surgeon in the navy, in which a very complete, straightforward history of the whole subject is given. Although too voluminous in all its detail to permit us to follow the author from page to page, the facts which he presents should claim the serious attention of every member of our profession, and should prepare them for the necessary action in the premises.

It is generally known that a "Bill to provide for the better Organization of the Medical Staff in the Navy," was presented to Congress during the early part of the present year, and after much bitter discussion, prompted by the jealousy of the line, was practically defeated for the time. The medical profession throughout the country naturally sympathized with their associates of the navy, and were justly indignant at the attacks in the different daily papers made upon it as a body by the various line officers.

The bill referred to was unanimously agreed to by the Naval Committee of the House of Representatives, was reported to that body on the 6th, and tabled on the 7th of January, 1869. It consists of four sections. The first provides for the appointment of a Chief of the Bureau of Medicine and Surgery in the Navy Department; the second classes the surgeons now in the navy into four grades, styled medical directors, with the rank of commodore; medical inspectors with the rank of captain; deputy medical inspectors with the rank of commander; surgeons with the rank of lieutenant-commander; passed assistant-surgeons with the rank of lieutenant; and assistant-surgeons with the rank of master, giving also the pay and emoluments of the several degrees of rank. In other words, the medical staff is classed in grades corresponding to those in the line. The proposition simply is to classify the medical officers and to define their duties, at the same time securing advancement through a series of progressive stages, from the lowest to the highest, say within twenty-five years, which with the medical man is the full period of activity after entering the service.

For very many years the naval surgeon has virtually been, and is still, considered in the light of a necessary incumbrance to the officers of the line. All the attempts that have been made to secure the position to which his professional character entitles him have been met with a strangely vindictive and determined opposition. He is now declared to be nothing more than a civilian, who has no right to any substantive rank whatever, and who must be satisfied still to depend upon the mere courtesies of the "commanding officers" for any status whatever upon shipboard. The annoyances, for want of rank, to which a member of a learned profession is subjected, are, to the last degree, disgraceful.

The medical profession of the navy are actually made to regret that they ever entered it, and no one need ask the reason why when they become acquainted with the privations that are their lot. As an example of not the least of these, we quote the following from a well-known member of the medical corps, who has served for many years in that capacity.*

"The assistant-surgeon enters the service with the rank of 'master.' That this title may not be misunderstood, it may be necessary to explain that it is the lowest rank in the ward-room, for the incumbent is, in modern times, generally a graduate of the Naval Academy awaiting his promotion to a lieutenancy. Like the master, the assistant-surgeon at once becomes a member of the ward-room mess, and unless the number of partitioned-off sleeping berths contained in the ward-room are occupied by his seniors, he may have the good fortune to occupy one of those that are ventilated and dimly lighted by an air-port of six inches diameter. This space is so restricted, and the separation from the common apartment is so slight, that words in an ordinary voice in either become common property. It is not possible to express to those who know nothing of ship life the luxury of a state room."

This may be endurable for a beginning, but alas! it is with the surgeon for all time, notwithstanding his rank. Notwithstanding his length of service, he is the same ward-room officer, and subject to the same restrictions that fettered him when new to the service. "With the failing eyesight of increasing years, the clerical duties of his position are to be performed, even in the daytime, by candle-light in this cell, while probably there is in the air and light of the upper deck ample room devoted to the pantries, water-closets, bath-rooms, and domestics of the commanding officers."

Further on the same writer says:—

"An humble though striking illustration of the domestic life of the medical officer on shipboard, and its contrast with that of the line officer, is shown by the fact that, should the doctor feel inclined to solace his cares by a pipe or cigar, he must do so, no matter what his age or rank, or the state of the weather, in the bow of the ship, among the chicken-pens and pigsties,

* Trans. Amer. Med. Association, vol. 18, 1867.

or hovering among the cooks over the galley or cooking stove.

"I wish such a contrast had been seen during our late unhappy war, when, during the most inclement wintry weather on our coast, an old fleet-surgeon was limited to such comfortless and degrading restrictions, whilst by the three commanding officers this luxury was enjoyed in their own cabins in the same ship. The first, the commander-in-chief, was the nominal junior of the medical officer; the second had been a midshipman in a squadron of which the medical officer was fleet-surgeon, twenty years before; and the third was not born until years after the doctor had actually engaged in the naval service." What a refreshing picture this is to hold up to our young men who may desire to enter the navy! Another writer on the same subject thus describes the relative position of a naval surgeon:—

"1st. He is an isolated individual, in a rigid and exacting military organization, and is held with the utmost strictness to its most minute and technical exactions, and for any violation of them is tried and punished by military tribunals, and yet is left without any of the advantages of definite rank. 2d. The whole private existence of every member of the military organization of the navy, even extending to the minute intercourse of life, is regulated by definite military rank, even to the seat which each shall occupy at the table [and within the writer's experience an order was given to the servants '*to help according to rank*,' without a corresponding order to the caterer to charge mess bill according to rank.] 3d. Without a definite military rank the medical officer is left entirely at the mercy of a close and powerful organization, which, from its very nature, education, and habits, regards but too often all the staff officers with a feeling bordering on contempt, and leaves them without protection to the insults of rude, illiterate, or inconsiderate men, or dependent on the gratuitous patronizing courtesies of gentlemen."

It is to protect the medical staff from such indignities that the bill in question, demanding legalized definite rank, has been framed, and it is for the honor of the profession at large that it should be upheld.

As a consequence of a very apparent design on the part of the line officers to degrade those of the staff, among which the medical officers come in for much more than their share, there has been a long existing feud, which cannot cease so long as Congress refuses to fix a positive rank upon surgeons by the proper legal enactment. It is well known that the medical officers carry with them a semblance of rank, which, as the line term it, is nothing but a "shadow," which consists of little else than the privilege to wear a uniform coat, and to be graciously considered on a social equality with the other officers. One of the strongest-urged objections by line officers to the appeal for definite rank, has been the expressed fear that discipline would be endangered. They have purposely forgotten that there is a very essential difference between the two. Rank is conferred by the legislative department of the government, but command is conferred by the executive—the former being permanent, the latter only temporary. There is no desire on the part of the medical staff to command outside of its own legitimate sphere; but in every other respect it claims with its rank all the honors, immunities, and pay which belong to it.

It is also the intention of the bill to establish professional grades and titles indicative of length of service and rank, and also promotion by seniority, as in the line. The duties of each grade are to be defined. Fleet medical officers are, in common with the captains of the fleet, to have a share in the distribution of prize money; medical officers to have their proper commanders in their departments; restriction of "executive" precedence in authority to cases in which the medical officer is junior in rank and commission.

We cannot at present do more than merely notice the main provisions of the bill in outline; but when the proper time comes for its second presentation to Congress we hope to do more. We must be content for the present to invite the cordial co-operation of the profession in behalf of the memorialists, and urge them to countenance it in every way in their power. They may rest assured that the naval staff are agreed upon it almost as a unit, and are determined to fight for their rights and privileges with a truly manful spirit. These gentlemen ask for an increase in rank, and it is no more than their just due. In fact, they are very modest in their demands, if we consider the privileges which are conferred upon officers in like situations in other civilized countries. Their estimate of rights is much below that already generously conceded to the medical staff in Great Britain, France, Russia, Spain, and Austria.

There is no doubt in our mind that, by legalizing the bill, justice will not only be done the medical staff, but that the navy proper must be directly benefited. Competent young men will then be more eager to enter the service, and the department will not, year after year, deplore the constantly increasing vacancies in the medical corps. If this be not accomplished, we shall pity those who are compelled to remain in the service, and advise the younger men to keep clear of it.

We learn from the Connecticut papers that there are at the present time 240 patients in the new Lunatic Asylum at Middletown. This establishment was recently erected, at the cost of half a million of dollars, for the pauper insane of the State. The hospital is full to overflowing, and yet there have been received but 140, belonging to this class. The great mass are still outside of the Asylum, and for what we can see are likely to remain so. This has happened as follows: Previous to 1868, the State did not undertake to pay any portion of the expenses of the insane, save where the insane person had "no relations of sufficient ability

and bound by law to provide for his or her necessary restraint and comfortable support, and *who, by reason thereof, has become chargeable to the town,*" and furthermore, "is in such a condition as to require for his comfort or safety" the benefit of an Asylum; and the expense of such confinement, *over and above the allowance made by the State*, was borne by the State. For a time this seems to have been loosely construed, and some were aided by the State, whose relatives paid half the expenses. The number grew so fast that in 1866 it was found necessary to begin again and continue to construe the law strictly, and none were aided who were not actual paupers and dependent on the towns. The State doubtless intended to make provision for its *pauper insane*, merely, and not the *indigent insane*, as the term is generally understood. In 1868, the State Legislature passed an Act by which the Governor no longer controls the disbursements of the funds appropriated to this object, but every *Judge of Probate* in every State. They have acted thus far on the principle that the *indigent insane*, not *paupers* merely, are to be admitted to the new asylum, their relatives paying half the expense and the State the other half. As there are over 1,000 insane poor in the State, more than half of whom are unprovided for, we see no reason why the State will not have to build two more asylums as large as the new one at Middletown before its insane poor will be as well provided for as they should be. But the public sentiment of the State is evidently against any such extended provision. The remark too often heard, even from its wealthy citizens, "we might just as well undertake to pay half the doctor's bills of all the people in moderate circumstances. It is an asylum for *paupers*, the towns paying one-half, that we agreed to establish." The *pauper* insane of the State are still mostly in poor-houses, and two or three more Asylums will have to be built. This is the only alternative unless the "Cottage" or "Gheel family System" be adopted, as now recommended by the first authorities of Europe and America, where the poor in time may enjoy the benefits of organized labor and open out-door life.

An association, styled the Southern Historical Society, has been formed, having its headquarters in New Orleans (with branches in all the Southern States), for the purpose of collecting material available for a history of the late rebellion. One of its objects, which should interest every medical man throughout the country, is the preservation of the medical records of the late Confederate army. Prof. Joseph Jones, of New Orleans, is the Secretary, and his well-earned reputation for patient and thorough research will be a guarantee for the faithful performance of his arduous duties. We cordially invite such of our readers as were engaged in either army during the late war to give him all the aid in their power, and we can assure them that their material will be conscientiously and impartially used.

The American Otological and American Ophthalmological Societies held their annual meetings at Newport, R. I., on the 21st, 22d, and 23d of July. Want of space compells us to crowd them out of the present number.

Reviews and Notices of Books.

Self-Enervation: Its Consequences and Treatment. By C. S. Eldridge, M.D., Bay City, Michigan. With an Introduction, by Prof. Hooper. Chicago: C. S. Halsey, 1868.

The publishers of this tractate, as it is styled in the pompous introduction, have reason to be proud of their work; but it is a pity they have no better material on which to lavish their good taste, for the "tractate" contains not a solitary idea from beginning to end. It is the joint production of two homœopathic practitioners, on the subject of masturbation, and the term self-enervation is adopted, we are told in the preface, as "less inelegant than the terms usually employed." Scores of just such pamphlets have been distributed by the most notorious quacks, and yet Prof. Hooper is of opinion that this particular evil of self-enervation has by no means received that amount of attention "which the sufferings of tens of thousands so loudly demands." Hence the "tractate," which is chiefly remarkable for the grandiloquence of its language, and a bold defiance of the ordinary rules of grammar and punctuation. Self-enervation, we are told, "seems to have kept its pace with our world's progression, every nationality bearing the impress of its accursed seal," and its "hydra-headed sequelæ" are dwelt upon with righteous indignation. Again, "the habit has its conception in the bosom of morbid sensuality, and taking its birthright from moments of the most inordinate sexual frenzy, completely engrosses the subject of its charms," and "it is next to impossible for them to forego its blighting embraces." In describing the symptoms, it is said the patient often awakes "to find himself manipulating at the fountain of his curse." We learn a little further on, by an adroit change of metaphor, that unless the primary cause is removed, a cure is "as impossible as a stoppage of the mighty cataract of Niagara." Therefore, "the first and most paramount desideratum," etc. But the crowning glory of the "tractate" is found in the following lucid statement of the law of the dose of such medicines as may be chosen, viz.: "The sum of the dose we believe to be inversely as the susceptibility, and the susceptibility to be in direct ratio with the similarity." This rule, we are told, "will enable the practitioner to approximate more nearly to the required attenuation than any other method yet disclosed to the profession." The above quotations give a fair idea of the character of the work, and if the exaggerated and erroneous views therein blunderingly set forth are the sole result of homœopathic observation, either the observers or their system must be sadly at fault.

Cases in Orthopedic Surgery, with Photographic Illustrations. By Buckminster Brown, M.D., Fellow of the Massachusetts Medical Society. Boston: James Campbell, 18 Tremont st., 1869.

These cases were originally read before the Massachusetts Medical Society, at the annual meeting in 1868. The author gives the history of twenty cases of deformity, chiefly talipes, but including spinal curvature, hip-disease, and affections of the knee. These are very briefly stated, and interspersed with practical comments

on the different methods of treatment. In a number of instances it is shown that tenotomy effected a cure after the most diligent and faithful use of all other measures had failed; while on the other hand it is made manifest that much harm may result from injudicious surgery. It is to be regretted that the author has not given the details of treatment in many cases reported cured without the use of the knife. It is rather indefinite to say "the knee was cured by proper apparatus," or that a case of talipes, which had baffled other surgeons for five years, was perfectly restored "after the boy had been in Boston three months."

In the treatment of certain forms of hip-disease, Dr. Brown has much faith in counter-irritation, and urges the profession not to discard vesication and local blood-letting, merely because they are old-fashioned remedies. A modification of Mr. Pott's treatment he has found of incalculable benefit. A few suggestive remarks are added on the causes, pathology, and management of torticollis. The photographic plates are admirable, and add much to the value of the work.

A Practical Manual of the Treatment of Club-Foot. By Lewis A. Sayre, M.D. New York: D. Appleton & Co. 1869.

This manual, the author tells us, embodies all the principles contained in his report to the American Medical Association, at its last meeting in Washington, besides notes of his lectures at Bellevue College. Putting aside all theories, he proceeds at once to a practical exposition of the treatment he has found most successful in actual practice. He considers briefly the anatomy of the foot and ankle-joint, and points out clearly and concisely the variations from the normal condition constituting the different forms of talipes. The cause of talipes he believes to be paralysis, as a rule—spastic contraction of the muscles, only as a rare exception. To ascertain the seat of the disease, it is necessary therefore to look to the muscles on the side from which the foot is distorted. Complications of talipes may result from inflammation and from defective nutrition of the muscles. The prime indications for treatment are therefore to restore the foot to its normal position, and to assist nutrition. If the disease be congenital, treatment should begin at birth. The abuse of tenotomy the author believes to be due to a non-appreciation of the pathology of the disease, and consequent neglect of after-treatment. He points out the cases in which tenotomy is advisable, and describes the manner of performing it. The method of manipulation is fully described, and also the various bandages and appliances devised or approved by Dr. Sayre to aid or maintain reduction. The application of the simple principles laid down is given in the details of a number of typical cases, accompanied by accurate drawings taken from life. As a practical manual, by an able and original surgeon, this small but comprehensive treatise supplies a want long felt by the profession.

Small-Pox: and the Protective Power of Vaccination; in the City of Providence. By Edwin M. Snow, M.D., Superintendent of Health. 1869.

There have been but fifteen cases and no deaths in Providence from small-pox during the last six months; a fact which affords a remarkable illustration of the efficacy of preventive measures in this disease. Whenever the disease broke out in any locality, the whole neighborhood was vaccinated. In no instance did it spread beyond the house in which it first appeared. The population of the city is about 50,000, and the average annual number of deaths from small-pox for the last fourteen years has been 3.2; which is only three-tenths of one per cent. of the total mortality; a result entirely due to the care taken by the city authorities to have the whole population vaccinated; especially the children of the public schools.

The Physiology of Woman, and her Diseases from Infancy to Old Age; also, the Management of Parturient Women, and a Treatise on Womanhood and Manhood. By C. Morrill, M.D. Boston: James Campbell. 1869.

Cheap works on "Physiology," such as the one before us, have a two-fold object. The primary object is to attract public attention by professing to gratify all degrees of morbid curiosity, and overleap at one bound all barriers of delicacy and respect. Thus a large sale is secured, to the material advantage of publisher and author. The second object of such vicious publications is to excite the admiration of the vulgar for an author whom they believe not only immensely learned, but honestly anxious to spread his knowledge broad-cast for the benefit of mankind. Thence springs a desire to consult the distinguished author, whose practice grows and flourishes in exact proportion to the sale of his books. This treatise on the Physiology of Woman, &c., appears to have reached a sixth edition, though printed and illustrated in the coarsest fashion. The author adopts a specious and insinuating style, well calculated to deceive the class at whom he aims; and while defending his vulgarities, he professes a tender sympathy with the womanly feeling he so coolly proceeds to outrage. The amount of mischief wrought by books of this class is incalculable; and the fact that they are so skilfully written as to evade the fate of works avowedly obscene, renders them only the more pernicious.

Thirteenth Annual Report upon the Births, Marriages, and Deaths in the City of Providence for the Year 1867. By Edward M. Snow, M.D. 1868-9. Providence. 1869.

Probably, there is no town or city in the United States, whose vital statistics are so carefully kept and so well reported as those of the city of Providence, R. I. The returns of births, marriages, and deaths are almost absolutely complete, which, we believe, cannot be said of any other city in the Union. The population is estimated at 57,000; the proportions to population were one birth in 35.1; one person married in 33.3; and one death in 59.4; a state of health unparalleled in any similar city in our country. Twenty per cent. of the total number of deaths is by consumption. Total deaths in 1867, 960. The report does great credit to its enlightened and experienced author, Dr. Snow.

Novel Twins from a Mare.—Mr. Adam Vettle, of Nokomis, Montgomery Co., Ill., sends the following interesting case to the *Boston Medical & Surgical Journal*. In the spring of 1868, a mare was bred to a stallion. A week afterward his "jack" broke loose and stayed with the mare until morning—she still being in heat. In the spring of 1869, she gave birth to twins—one a *mule*, the other a *horse* colt; at last accounts both were alive and doing well.

Chromic Acid.—Dr. E. Magitot (*Bull. Gén. de la Thér.*) especially recommends chromic acid in the affection, known as "alveolo-dental osteo-periostitis." He also advocates it in all forms of stomatitis, aphthæ, and other ulcerations of the buccal mucous membrane.

A New Skin Disease.—Dr. Hermann Beizel recently exhibited at the Pathological Society, London, a living specimen of skin disease not described hitherto; the name of papilloma area-elevatum was given to it by the presenter.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, JUNE 23, 1869.

DR. L. A. SAYRE, President, in the Chair.

(Continued from page 284.)

OVARIOTOMY.

DR. B. HOWARD.—This specimen, Mr. President, is a multilocular cyst of the left ovary and its contents entire, which I removed on the 21st inst., weighing over 30 lbs.

The patient is a superior Irish domestic, about 30 years of age, and has never been married. She commenced to menstruate when about 14 years of age, and continued regular about four years, when for about six months they completely disappeared. For this she was treated by Dr. Mitchell, of Brooklyn, when they returned, but were irregular, and have continued so ever since.

Five years ago she observed a swelling in the left iliac region, which continued slowly but uninterruptedly to increase—accompanied with no pain, except that within the last few weeks she has had a dull aching in the right iliac region. During all the time up to the occurrence of this pain, her general health has been otherwise good.

On the 26th of May, the patient applied to the Long Island College Hospital, requesting the removal of the tumor.

On admission her pulse was 95, small and compressible, tongue clear, bowels pretty regular, expression bright, complexion clear, appetite good, menstruation natural, except being irregular. For several weeks she had complained of considerable pain in the right side, and was so decidedly losing flesh and strength that herself and friends were in haste to have the tumor removed.

An examination revealed all the physical signs concurrent with the previous history, and, a consultation being called, it was unanimously decided that the patient had a cystic ovarian tumor, and that its removal by operation should be effected at the earliest convenient date.

Accordingly, on the 21st of this month, after the preliminary cathartics and opiate enemata, assisted by Drs. Dodge, Burge, Smith, Snively, Mason, and other gentlemen of the Hospital staff, in the presence of Profs. Dunster, Smith, Lusk, Dr. Dudley Mason, and many others, I proceeded to perform the operation of ovariotomy.

I commenced my incision about two inches below the umbilicus, and made it large enough only for the ready introduction of my hand—say about four inches. Through this, sweeping my hand all around the tumor, I found it perfectly free from adhesions.

Spencer Wells's largest trocar was introduced, but the contained fluid was so dense that but a few drops could be induced to pass out. The elastic tube was removed and pressure made upon the tumor, but about half a pint only oozed from the trocar, so I plugged up the open end of it, and made the other very secure by clamping the sac upon it so as to prevent any accidental drainage into the abdominal cavity.

Without any delay I then extended the incision above and below to the necessary extent, and evolved the entire tumor, Dr. Mason following it up as it was protruded with flannels wrung out in warm water containing a little carbolic acid encircling its base and pedicle, and keeping back the intestines.

I had contemplated treating the pedicle by using the cautery to the stump, and transfixion of its body to the interior of the abdominal wall by acupressure.

This pedicle, however, was very short, very broad, and very vascular. So to obtain the greatest security I used two double silk ligatures, transfixing its centre, and tying with each its proper half, cut off one end of each closely, and brought the free ends out at the lower end of the wound. To secure whatever advantage it might afford, before applying the ligatures I had them saturated with a solution of carbolic acid.

The tumor was detached in about twenty minutes from the commencement of the operation. Probably less than an ounce of blood had been lost, except from the tumor on detaching it, and none of this or other extraneous fluid had apparently entered the abdominal cavity. The pedicle was dropped back, the wound closed by silver sutures, about ¾ of an inch apart, and the patient replaced upon her bed in about an hour from the beginning of the operation. After the operation an injection of starch and laudanum was administered, and pellets of ice were allowed in her mouth to allay thirst.

The water resulting was soon after vomited, and for the ice I substituted ice-cream, which was just as refreshing, provoked no irritation, and had the advantage of being nourishing as far as it went, only half a teaspoonful being allowed at a time.

Her pulse that day was but 88—better even than before the operation, with no unpleasant symptom whatever.

The next day I allowed her a small piece of rare mutton chop, which she enjoyed, but it was followed by pretty sharp colicky pain.

My plan henceforth was absolute rest of the stomach, and avoidance of all medication and stimulation, except as actually demanded by existing symptoms, to be treated as they might arise.

Beef tea and milk were given alternately every hour in small quantities per rectum, and an opiate enema once a day to control the peristaltic action of the bowels.

Under this treatment, with thorough hygienic precautions, the patient has progressed regularly and well. Up to this afternoon when I left her she had made no complaint whatever, except of some soreness of the wound. In reply to my question as to how she felt, she said "pretty well, thank you," and, indeed, she appeared very unlike one who had endured a capital operation, and, although she lies in the ward of a hospital, I entertain sanguine hopes of her recovery.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

STATED MEETING, JUNE 7, 1869.

DR. GEORGE T. ELLIOT, President, in the Chair.

THE President announced the election of Dr. Robert McNeil to membership.

BROMIDE OF POTASSIUM IN SUMMER COMPLAINTS AND OTHER AFFECTIONS.

DR. SALVATORE CARO read a paper upon *The Treatment of Summer Complaints by the Bromide of Potassium*, which has appeared in THE RECORD for July 1st.

DR. CALKINS deemed hot water and hot vapor baths invaluable auxiliaries in the treatment of the bowel complaints of children, and related a fatal case which he thought had suffered from their omission.

Dr. Garrish had found the bromide fail to control the nausea and vomiting of pregnancy, and asked Dr. Caro's experience.

Dr. Caro had not used the drug in pregnancy, as, from something in his reading, he had gained the impression that it was emmenagogue, and might do harm. He had found it at once arrest the vomiting in the case of a woman with Bright's disease, who had for three or four weeks been unable to retain food. It had stopped the nausea and vomiting in a case of typhoid double pneumonia.

Dr. Chadsey had been using the bromide quite freely for the last three months, in affections of the stomach and bowels. It had happily relieved the only case of cholera infantum he had chanced to have in that time. In a case of vomiting in the commencement of pregnancy, which nothing else would check, it had been promptly effective, and no bad results had followed; indeed, none had been anticipated. A druggist having a very large prescription business had said that the consumption of the bromide had quadrupled within a short time, and that it was greater than that of the iodide, which it was replacing in many instances.

The President was asked whether he considered the bromide an emmenagogue. He replied that he had used it in many cases of pregnancy, as well to control the nausea and vomiting as for other indications, and his experience was that it had no emmenagogue action whatever. He was in the habit of employing it freely, and in large doses, in dysmenorrhœa, to gain its sedative effect, and he had never seen it increase the flow. He could not, therefore, think we were justified in refraining from its use on account of the pregnant condition. He had not found it so satisfactory a remedy for the nausea and vomiting of pregnancy as to lead him to give it the first rank; but neither did he know any other remedy to which this could be assigned. In the treatment of such a symptomatic disorder we must expect failure. It was trying to remove the effects of the thorn in the flesh without removing the thorn. Among the articles that had lately appeared, commending the bromide in the various forms of nausea, was one by Dr. Storer, of Boston, showing that it counteracted the nauseating effects of ether.

With regard to the class of cases related by Dr. Caro, Dr. Elliot yielded entirely to him in experience, and could speak from personal knowledge of his accuracy of observation and record. His testimony was of such value that it would probably more or less shape the practice of his hearers this summer. In the case of a rachitic little child, suffering from whooping-cough and bronchial catarrh, and with a good deal of diarrhœa, refusing nourishment, and lying on the bed with hot skin, restless and fretful, Dr. E. had given the bromide alone, and its effect was delightful. It had produced like results in two or three other cases equally unpromising.

As to the extended use of the salt, Dr. Chadsey was certainly right. Probably every druggist was now selling much more than four times as much of it than a few years ago. For his own part, while prescribing it much more frequently than before, it was not so lately that Dr. E. had been awakened to its value. Fourteen years ago it was his favorite remedy in spasmodic croup, and bronchial catarrh with irritation of the respiratory passages. Having about that time a troublesome case of spasmodic croup he had at last given the mother the prescription, labelled "Preventive for Croup," to be used whenever she saw an attack coming on. On her return from Europe, the lady said it had acted so well that she had given the prescription to perhaps sixty families.

The hypnotic action of the bromide was so well known as to need no comment. The danger was now that too many of the public would acquire the habit of taking it, as a regular thing, to produce a quiet night's sleep. Dr. E. believed that a gentleman of this city had lost his life from its excessive and habitual use. A prescription given to secure sleep this man had kept, and had renewed again and again, until he used to lie half the day in a state of languor. Coming under the speaker's care, his habit was discovered and finally given up; but not before it had produced the prostration which was probably the cause of his death.

Dr. Caro, in response to questions, said that he had commonly given the small doses—one-fourth of a grain to three grains—mentioned in his record of cases; and that he had never, except in one instance, given a larger dose than eight grains. He had seen no eruption follow, save in a single case, and there he thought it not attributable to the bromide.

Dr. Kennedy thought the dose of the drug might be considered very indefinite. He had himself taken a large amount of it last winter, for an obscure trouble in the head and pain in the shoulders. The doctors were undecided about the diagnosis, but agreed in recommending the bromide. He had begun with a solution of two drachms of the salt to four ounces of water, a teaspoonful every three or four hours. This dose he increased till he was taking two and four drachms of the salt daily. Then he bought half a pound of it, and made a saturated solution, of which he took at first a teaspoonful, and afterwards a tablespoonful, four times a day; and he thought he might have taken more without injury. It gave a very pleasant night's rest, and a delightful feeling of languor and lassitude, which was continued for days and weeks. He had observed the eruption; also that the medicine disturbed the bowels and stimulated the kidneys; but in his own case it did not at all disturb the stomach, simply producing an agreeable sense of warmth. He believed that where the nervous system is irritated, from whatever cause, and it becomes necessary to soothe either body or mind, the bromide is an excellent remedy. He would recommend it to be taken freely in such cases, and especially by rum-drinkers.

The President stated that a saturated solution in water was one part to four.

Dr. Farnham referred to the cases reported by Dr. Hammond, where the bromide in large doses had produced insanity.

The President had once given half an ounce in the course of one night, in a bad case of delirium tremens. The morning came, and it had produced no perceptible effect; but a shower-bath on the head and neck put the patient to sleep in a couple of hours. He would hardly give such a dose again; for although some persons might bear it well, there was undoubted testimony to its evil effects on others. We should remember the fate of Fountain, who, to prove his views of the harmlessness of chlorate of potassa, took the dose which killed him.

Dr. Harwood had used ten-grain doses every two hours, with great benefit, in cases of sick headache.

THE SABBATH QUESTION.

The President read a communication from a committee of the Evangelical Advertising Association, asking an expression of opinion, by the Society, upon the necessity for a sabbath of rest, on every seventh day, for the physical welfare of mankind.

Dr. Peaslee.—If this subject takes the usual course, and is referred to the Comitia Minora, this committee can get no reply from us till fall. I should, therefore,

be in favor of passing some such resolution as they propose, without reference to the Comitia Minora; and I move the following:

Resolved, that one day's rest from labor in seven is necessary for the health both of the mind and the body.

DR. CALKINS.—It seems to me, Mr. President, that we ought to take a little more time before passing a resolution of this kind. Though I doubt not we should all agree with the spirit of the resolution, yet I think it would be regarded by the public in a religious aspect; and that we should have a stated meeting and discuss the subject.

DR. KENNEDY.—I have the honor of knowing the gentlemen who make this request, and there is no doubt that it was with the view of presenting the question in its religious aspect, that it was brought up. Why not say every sixth, or fifth, or tenth day? This Society might, by passing such a resolution, offend a class of people who do not care for the Sabbath; and I suppose we do not wish to offend any class.

THE PRESIDENT said that this was an abstract question, put by Dr. Peaslee; that it bore no religious character, and made no reference to duty.

DR. CALKINS thought that if the resolution were passed now, it would appear as if done at the dictation of the clergymen who had asked for it. If the Society wished to pass upon the question, let it be after proper reference and discussion.

DR. JOEL FOSTER thought every member was as ready to vote upon the question as he would be after protracted debate.

After some further discussion, Dr. Peaslee's resolution was carried. The President explained that he had acted in a strictly official capacity, and without regard to his personal opinion.

The Society then adjourned.

Correspondence.

RUPTURE DURING LABOR.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—Several inaccuracies occur in the case of "Rupture during Labor"—presented in my absence by Dr. Finnell, May 26th, and reported in the MEDICAL RECORD of June 15th—which it would be well to correct in the official record of the transactions.

1st. The specimen presented showed extensive rupture in the anterior face of the vaginal wall, just below the os uteri, but not involving the uterus in the least. So that the heading, "Rupture of the Uterus," is a misnomer.

2d. I did not fail, as reported, "to deliver the woman, after persistent efforts, for half an hour." On the contrary, I discovered the rupture the moment I approached the patient, *feeling* that the child was in the abdominal cavity, and the uterus already firmly contracted, and I at once declined to attempt delivery until some other responsible medical man was present, as I feared, there had been culpable neglect or criminal ignorance shown in the case, which had led to the disaster. I went there, by request, to apply the forceps, and the woman had been placed in position, and was put under chloroform, before I approached her. I desisted from any attempt to deliver in that way at once, not deeming such a method practicable under the circumstances. I had resolved on an attempt to deliver by the feet, as soon as some responsible medical man should arrive, *and did so deliver her, promptly* and with *great ease*, in less than an hour from the time I first heard of the case; thus demonstrating that this method of relief might have, and should have, been resorted to at least fifty-four hours before, and the rupture in all probability could thus have been prevented.

3d. She lived *thirty-three hours* after delivery; not "*three hours*," as in the report; and it ought to be added that evidence of extensive peritonitis, at least three days old, was found. The antero-posterior diameter, it is true, was small, and the promontory of the sacrum well pronounced, but yet the ease with which the head finally passed, showed there was room enough for all practical purposes. A close oral examination of the doctor and attendants leads me to the conclusion that the rupture took place from thirty-six to fifty-four hours before I was called. These corrections are, in my opinion, necessary to give force to the moral of the story—viz., an additional illustration of the great mischief arising from too tardy interference in difficult labor, as well as in too much, and also of the criminal ignorance of some *legal* practitioners of medicine; for, according to his own statement, I am satisfied that the aged eclectic whom I found in attendance had waited faithfully upon his patient for nearly three days—through all the agonies of rupture and subsequent extensive peritonitis—without making a single digital examination after the first, which revealed the head within half an inch of the vulva; and only quieting her distressing cries for relief *by an anodyne*.

THOS. B. STIRLING, M.D.

HUNGARIAN WINES—THEIR MEDICINAL VIRTUES, &c.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—A few years ago my attention was directed to the medicinal virtues and other admirable qualities of certain Hungarian wines; and since that time, during my late visit to Hungary the past year, I have given these wines a thorough trial both by using them myself and prescribing them for my patients. I might speak of their delicious flavor and fragrance, but as I am addressing myself more to the medical profession and invalids than to those who drink wine for the love of it, I shall notice only their curative and restorative properties. The class of these Hungarian wines that I have tried most successfully, though there may be others equally good, are the Carlowitz, the Ofner Crusler, the Somlau, and the Oedenburg. The Carlowitz is highly nutritive and a fine tonic, and may be used with the best effect in the convalescent stage of fevers, cholera, and dysentery, and in all cases of debility or exhaustion of the body arising from such illness, or a lax condition of muscular fibre and blood-vessels. It is a red, full-bodied, sub-astringent wine, of a somewhat dry character. Its specific gravity is about 996; alcoholic strength about 21; and it holds in solution, according to the analysis of Kletzinsky, Liebig, and Hofman, phosphoric acid and iron. The Ofner Crusler is also a red wine, of a full, smooth, and delicate flavor. Its alcoholic strength is 23. It may be used with great benefit where there is general debility of the system, and in passive hæmorrhage from the rectum attended with discharge of mucus. It will be found of great service in general anæmia and the chlorotic condition of young women, for diarrhœa, for amenorrhœa, for suppression of milk, and as a blood enriching wine generally. The Somlau is a sound, dry, firm, white wine, with remarkable flavor. The alcoholic strength is 21. This wine possesses aperient properties. It has been used with great benefit for chronic constipation, and it may be prescribed advan-

tageously as an adjuvant in retention of urine and difficult micturition, which do not arise from renal inflammation or from pyelitis. The Oedenburg has pre-eminence for the excellence of its flavor, delicacy, and soundness. It is a white wine, with a slight Muscatel flavor. Alcoholic strength about 20. It may be prescribed with great benefit in various forms of dyspepsia; a weak and languid circulation; derangements of the liver, and hypochondriasis. To the dyspeptic, literary man, hard-working merchant, and all who require some stimulant to keep up the constitution and system, no more useful, innocent, and agreeable beverage can be taken than the Oedenburg. The wines I mention here are those of Mr. Max Greger, the same which have been ordered by her Majesty, the Queen of England, for her palace and the refreshment rooms of Parliament, and were obtained by me from the agents, A. Bininger & Co., 94 Liberty Street, New York. From my knowledge of these wines, and my own experience with them, I feel it a duty to call the attention of the medical profession to their many excellent qualities in helping to cure, and in restoring patients to health.

F. S. HARRIS, M.D.

NEW YORK, JULY 10, 1869.

A CORRECTION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—I regret, in looking over the report of the New York County Medical Society published in the last number, to see that my remarks were incorrectly interpreted, and a serious error appears. I regard it as a favorable symptom in Bright's disease if, *during uræmia*, and while the patient is lethargic, the urine is loaded with albumen; but do not look upon albuminuria as a favorable symptom under ordinary circumstances.

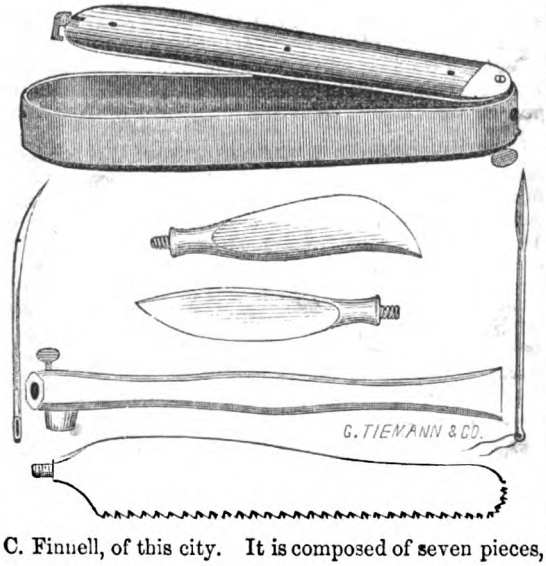
Yours, &c.,

GOUVERNEUR M. SMITH.

New Instruments.

FINNELL'S POST-MORTEM CASE.

THE accompanying cut represents a very neat, compact, and convenient post-mortem case, devised by Dr. T. C. Finnell, of this city. It is composed of seven pieces, the case itself being no larger than an ordinary pocket case. Its shape is adapted to the greatest economy as to the room it may occupy. The sides of the case are made of brass, and the cover and bottom of hard rubber or horn. A general handle of steel for a cartilage and scalpel-blade and the saw is provided, one end of which to serve the purpose of a chisel. The hammer for this handle, when used as a chisel, is also made of steel, and is shown at *a*. The saw is peculiarly constructed as regards shape, and the teeth are purposely made for coarse quick service. The needles are tipped at their eyes with bulbs of brass, after the fashion of the knobs upon the horns of an ox. This ingenious and simple arrangement greatly facilitates the introduction of the needle, and at the same time prevents any wounding of the finger.



It is manufactured by Messrs. G. Tiemann & Co. of this city.

Medical Items and News.

IOWA STATE MEDICAL SOCIETY.—At the recent meeting of this Society, the President, Dr. Willey, offered for competition to the members of the Society the following prizes: $50 for the best essay on the Epidemic and Endemic Diseases of Minnesota, and $50 for the best essay on Cerebro-Spinal Meningitis; the respective merits of said essays to be determined by a committee to be appointed by the President. Why do not some of the older societies follow this example?

THE CENTRAL NEW YORK MEDICAL ASSOCIATION recently held its second annual meeting at Rochester. It is in a very flourishing condition, and is rapidly gathering in all the prominent medical men of the middle counties. Dr. H. D. Didama, of Onondaga, is the President for the ensuing year. Some very interesting papers were read by the members, some of which we hope to be able to present to our readers.

THE COMMERCIAL CLASSES OF NEW YORK AND LONDON COMPARED.—The *Lancet* states that the high pressure business energy of New Yorkers, combined, as it frequently is, with a devotion to iced drinks and whiskey, produces an increased occurrence of cases of nervous exhaustion, often ending in paralysis or lunacy. During the prevalence of heat-apoplexy in the summer of 1868, ardent spirits were consumed in New York city very much as beer is in London, and the thoughtful are not surprised at the death-rate. The late Sir Charles Napier remarked that the heat of India found no ally in the alcohol in *his* brain. The moderate consumption of bitter beer, and the enjoyment of a holiday at the seaside for some weeks, are more favorable to health and life than the habits of New Yorkers.

APPOINTMENTS IN THE ALBANY MEDICAL COLLEGE.—Dr. James McNaughton has been elected President, and Dr. James H. Armsby Professor of Surgery, by the faculty of the Albany Medical College, in place of Dr. Alden March, deceased.

RICHMOND COUNTY MEDICAL SOCIETY.—The Richmond County Medical Society—Staten Island—held a meeting July 14th, when the following officers were elected for the ensuing year: D. A. Edgar, M.D., President; Drs. T. C. Moffatt, Vice-President; C. J. Van Rensselaer, Secretary; and J. C. Cavelti, Treasurer.

A Removal.—The Woman's Aid Society and Presbyterian Home for Training Young Girls has removed to a building at the foot of Eighty-third-st., East River.

A New Prize.—Prof. Louis Elsberg offers two prizes: one for an illustrated report of the clinic of diseases of the throat at the University Medical College; the other for an anatomical preparation of the pharyngo-nasal space. These prizes are open for competition to all medical students.

New Societies.—"The Society for Reporting the Progress of Medicine" has been quite recently organized. It is composed of one member representing each department of medical science. Meetings: second and fourth Thursdays of every month. *President*, H. Knapp; *Secretary*, A. L. Carroll. The departments, so far as they have been filled, are represented by the following gentlemen: H. Knapp, Wm. B. Neftel, Leonard Weber, J. C. Peters, Wm. B. Lewis, Louis Elsberg, Alfred L. Carroll, E. L. Keyes, J. Kammerer, J. B. Reynolds.—"The New York Dermatological Society," the first of the kind in the world, chiefly through the exertions of our friend, Prof. F. D. Weisse, has also been organized by the election of the following: *President*, Henry D. Bulkley; *Vice-President*, Faneuil D. Weisse; *Recording and Statistical Secretary*, Henry G. Piffard; *Corresponding Secretary*, Fred. Zinsser; *Treasurer*, Robert Wm. Taylor; *Librarian*, F. Le Roy Satterlee; *Committee on Admissions*, Wm. H. Draper, Foster Swift, E. L. Keyes.

Death of Prof. Charles D. Meigs.—The venerable Prof. Charles D. Meigs, M.D., died recently at his residence in Delaware County, Pa. Dr. Meigs was a native of Georgia, but since 1820 he has resided in Philadelphia. In the year 1840, he accepted a Professorship in Jefferson Medical College, and for twenty years he labored with much success as an instructor in that institution. He was connected with the obstetrical department of Pennsylvania Hospital for about ten years, and was well known as a clear and forcible writer, both in the Old and New World, and his works are text books in many of the Medical Colleges of America. He leaves a host of warm personal and professional friends to mourn his loss, and the medical profession loses one of its most distinguished ornaments. He was the father of Dr. J. Forsyth Meigs, of Philadelphia, of Major-General Montgomery C. Meigs, U.S.A., and of several other children.

Brain Disease in England.—In the ten years, 1857—1866, 11,685 deaths were registered in England from softening of the brain. 7,168 males, and 4,517 females.

A Large Reward for Preserving Beef.—The Brazilian Government has offered a reward of $8,000 in gold to the inventor of any method of preserving beef for exportation.

Professor Syme.—This able Professor of Surgery, who had an attack of partial paralysis in April last, is now able to walk without support. The motor-power *only* was affected.

Boston Medical and Surgical Journal.—This venerable medical journal has entered upon its eightieth volume. Luther Parks, Jr., M.D., is now the sole editor.

Graduates in Medicine in 1869.—University of Pennsylvania, 130; Jefferson Medical College, Philadelphia, 120; Bellevue Hospital Medical College, N. Y., 124; Rush Medical College, Chicago, 108: College of Physicians, N. Y., 98; University Medical College, 82; Medical College of Ohio, 71; University of Louisville, 70; Massachusetts Medical College, Boston, 58; Miami Medical College, Cincinnati, 48; Buffalo Medical College, 34; Cincinnati College of Medicine, 28; Medical Department University of Nashville, 17; Medical College of State of South Carolina, 14. Total, 1,008.

Water-Proof Paper.—A patent has been taken out for the manufacture of water-proof paper.

Expulsion of a Tape-Worm.—J. W. Pinkham, M.D., Montclair, N. J. (*Med. and Surg. Reporter*), relates the following case of Tænia lata: He gave to an Irish woman, æt. 28, three compound cathartic pills at bedtime. The next morning at 9 o'clock, having taken no breakfast, she swallowed an ounce of oil of turpentine with coffee. This was followed, in the course of two hours, by an ounce of castor oil. The worm, which measured 31 feet in length, and contained upward of 2,500 segments, made its appearance in the course of the evening.

Dr. B. W. Richardson.—This distinguished London practitioner has been elected Assessor in the University Court of the University of St. Andrew's, in the place of Lord Jerviswode.

New Medical College.—A faculty of a new Medical College has been organized at Indianapolis, Indiana. An effort will be made to raise $100,000 for an endowment.

Old Women's Remedies.—Thomas Inman, M.D., Liverpool (*The Medical Mirror*), states that things which were once despised as old women's remedies are gradually being adopted by thoughtful eclectics. He is indebted to an elderly lady for his knowledge of the best remedy to allay cough. She sent him a mixture of honey, rum, and lemon juice in equal parts. This with or without laudanum is still his favorite prescription. Again, he is indebted to ancient females for his introduction of milk and rum as an article of medicinal diet, and he knows no single remedy which is equal in value to it.

Important Remedy in Insane Affections.—James George Davey, M.D., M.R.C.P., Lond. (The Med. Mirror), looks on chloroform as a remedy of the very first importance in insane affections, as well as in cases of ordinary *delirium tremens;* and especially so when the powers of life are not very much below par, and the symptoms are otherwise urgent. Free purgation should precede the administration of chloroform.

Delirium tremens is regarded by him as a form of *acute mania*, originating in a specific condition of the great abdominal plexus of nerves.

Paris Faculty of Medicine.—Recently, Dr. Regnault, of the Paris Faculty of Medicine, has been interrupted in his lectures by the outcries and noise of the students, and on that account two of his lectures could not be given. The interruption was attributed to his severity at examination.

Honors Conferred on Medical Men.—Professor Oppolzer, of Vienna, has received the cross of Knighthood of the order of Leopold. The rank of Aulic counsellor has been conferred on Professors Brücke and Skoda, of Vienna; and that of counsellors of state on Professors Jaksch and Halla, of Prague.

Mustard Poultices.—Dr. Herbert (*Med. Press and Circ.*) remarks, that mustard poultices should be made with lukewarm water, rather than hot water.

Vital Statistics of Boston.—The number of births

in Boston, including the City of Roxbury, in the year 1868, was 7,102; 3,590 males, and 3,512 females, an increase of 265 over the number born the preceding year.

The population cannot be far from 240,000. The number of still-births in 1868, was 484, or one birth to every 31.64 persons living. The number of deaths during 1868 was 5.519; males 2,861, females 2,658.

The following statement of the deaths in Boston, New York, and Philadelphia, will show how the mortality in the first city compares with the two latter towns. Boston, 1 death to 43.48; New York, 1 to 44.19; Philadelphia, 1 to 59.74.

NEAR-SIGHTEDNESS AMONG COMPOSITORS.—M. Kohn of Paris (Boston Med. and Surg. Journal) has been examining the eyes of 132 Compositors in printing-offices. Half of the subjects were near-sighted. That is, of the 132, there were 68 near-sighted, 51.5 per 100; 7.6 per 100 were hyperopic. Of the 68 myopic, 51 had begun life in the enjoyment of good eye-sight.

THE ELECTRIC FLASH.—In a recent popular lecture in London, Dr. Richardson showed the electric flash to be immediately fatal to animal life, although it produced so little change in the animal killed that the position and appearance of life were for some time preserved. The heart continued to beat for a considerable period after respiration had ceased, and hence recovery might be possible in cases of apparent death. Interment would not be justifiable prior to the appearance of decomposition, unless either there was general rigidity of muscle, especially of the chest muscles, or coagulation of the blood in the veins. To ascertain the latter point, a large superficial vein should be freely opened for examination. The lecturer then proceeded to discuss the relative conducting power for electric currents of the different bodily tissues, and showed some beautiful experiments, suggested by Mr. Tobin, by which differences in this respect could be rendered visible. A tube, filled with the material to be tested, was made to form part of the circuit conveying the current to one of Gassiot's vacuum cascades, and the brilliance of the luminous phenomena was diminished when the tube contained an imperfect conductor. Each tube was a foot long, bent at a right angle; and, when the tube was filled with animal fat, this resisted the current entirely, and the spark passed across through the outside air, forming a luminous hypothenuse to the right angle. Arrangements are in progress for rendering this test exact, and capable of numerical expression; but at present it appears to show that the blood offers less resistance to electricity than any of the solid tissues, and must, therefore, be the medium of its conduction within the body. If this result be fully confirmed by further experiment, it will lead to considerable modification of the views about "localised electrisation," through the medium of the muscles and of the nerves respectively, that have been put forth by Duchenne and Ziemssen, and that are now generally accepted.—*Lancet.*

VISIT TO DR. HARVEY'S TOMB.—Drs. B. Richardson, Lloyd, Winslow, Seaman, with other distinguished medical men of London, recently paid a visit to Hempstead Church, the resting-place of the remains of the immortal Harvey, the discoverer of the circulation of the blood Dr. W. Harvey was the son of Mr. Harvey, a merchant of London, whose country residence was at Hempstead, Essex. Nothing remains of the mansion but the site, a pasture of about an acre and a half, surrounded by a moat of great width. Mr. Harvey died in the year 1657, aged 79. There are in the vault of the church 52 tombs, all of the Harvey family, that of Admiral Harvey being one of the number. The coffin is made of lead; the roof is depressed, giving it a trough-like appearance. There is a long slit in it, and the contents examined through the slit appeared like black mud. A very singular incident which occurred in the life of Harvey was mentioned by Dr. Winslow. The Doctor had intended crossing to France on a certain day, but the night previously dreamed he was sailing, and the ship and crew were lost. In consequence of the dream the Doctor did not go. The ship sailed at the appointed time, and was lost with all the crew. The circulation of the blood had not then been discovered, and had not Dr. Harvey been forewarned of the catastrophe his grand discovery might have been deferred for another century.—*The Veterinarian.*

RECENT ELECTIONS IN THE SOCIÉTÉ DE MÉDECINE LEGALE.—We have been requested by a circular from the general secretary of this Society, to notice the election of the following named national corresponding members:

MM. Bahuand, professor, École de Médecine, Angers.
Benoist, medical doctor, Saint Nazaire.
Bonnet, medical doctor, Valence (Drôme).
Carret (nephew), medical doctor, Chambéry.
De Closmadeuc, surgeon-in-chief, of Hôtel-Dieu, Vannes.
Cucuel, medical doctor, Montbéliard (Doubs).
Delille (Louis), vice-president of civil tribunal of Generet (Creuse).
Ernoul, bâtonnier of the order of advocates, Poitiers.
Houzé de l'Aulnoyt, professor, École de Médecine, Lille.
Lecadre, vice-president of council of hygiene, arrondissement of Havre.
Liegey, medical doctor, Rambervilliers (Vosges).
Pennaut, medical doctor, Vervins (Aisne).
Poshel, professor, École de Médecine, Caen.
Rigal, Surgeon-in-chief, Hôpital de Gaillac (Tarn).
Tourdes, professor of legal medicine, of the Strasbourg Faculty of Medicine.

Signed, Le secrétaire général, T. GALLARD.

The Society has now sixty national corresponding members, and there are 40 more to be named to fill the maximum of 100.

The number of foreign correspondents is not limited. The modes of nomination may be learned from the Secretary.

AN ANECDOTE OF ABERNETHY.—When the Rev. Jos. Tuckerman, D.D., of Boston, Mass., consulted Abernethy, on his first visit to England for his health, forgetful of the doctor's well known antipathy to circumlocution, he expatiated upon the importance of health to him as the pastor of a "little parish in Chelsea," about which he indulged in some very natural but rather untimely regrets, until the impatient physician cut him short with "no matter about your little parish—go home and build a barn." Though inclined at first to resent this unsympathetic dictum, the reverend gentleman followed the advice, and found it precisely adapted to his case; he secured thereby exercise, and had a mechanical employment that occupied his attention at the same time; and when the barn was finished his health was restored.

THE BRAIN OF REV. JOSEPH STEPHENS BUCKMINSTER, D.D.—This celebrated Boston divine was subject, for many years, to epileptic attacks, and died in 1812, at the early age of 28, in the zenith of his fame. Dr.

John C. Warren, of Boston, made a post-mortem examination at the time, and found that the brain was quite remarkable for the distinctness and beauty of its organization. Those parts considered most important were more largely developed than usual. The osseous cavity which incloses the pituitary gland was found to be distorted by a morbid growth of the clinoid processes, which, to a certain extent, compressed the gland, and converted it into a caseous substance. In the case of Gov. Sullivan, a friend and parishioner of Mr. B., who was also subject to severe epileptic attacks, the same phenomena were presented. Wenzel, a German anatomist, was of opinion that the cause of epilepsy lay in the pituitary gland.

Guide Book for Invalids.—A "Guide Book of Florida and the South," for the use of invalids, is being prepared by Dr. D. G. Brinton, of Philadelphia.

Criminal Poisoning.—During the ten years from 1855–65, the total number of cases of poisoning which have led to criminal proceedings in France, is 494. The poisons employed, twenty-nine in number, are as follows: Arsenic, 135 times; phosphorus, 180; verdigris, 15; sulphuric acid, 22; sulphate of copper, 83; nux vomica, 1; mercurial ointment, 1; glass in powder, 2; cantharides, 10; sulphate of iron, 3; colchicum, 1; Fioraventi balsam, 1; hellebore, 6; tartar emetic, 2; laudanum, 6; carbonic acid 1; eau sédative, 2; ammonia, 3; hydrochloric acid, 4; strychnia, 5; syrup of poppies, 1; mercury, 2; morphia, 1; potash, 1; digitalis, 2; nicotine, 1; prussic acid, 1; croton oil, 1; antimony, 1; total, 494.

Transfusion.—Professor Landois, of the University of Greifswald (*Wien. Med. Woch*), states that transfusion in cases of hæmorrhage has been performed 99 times; in 11 of which no successful result was possible. Sixty-five of the remaining 88 cases were successful, 20 unsuccessful, and in 3 the result was doubtful. This operation has been performed in cases of acute poisoning 12 times. The results were favorable in 3 cases; in 8 unfavorable.

Paulus Ægineta.—The Greek physician Paulus Æginæta flourished at the end of the sixth and beginning of the seventh century; seven hundred years later than Celsus, nearly twelve hundred years after Hippocrates, and almost two thousand years subsequent to Æsculapius. "The Seven Books," of this author—made known to us in the English tongue through the labors of Francis Adams—represent the knowledge of medicine attained during the progress of two thousand years.

Recognition of Dermatology.—Diseases of the skin, so long ignored by the faculties, are beginning to be popular. The College of Physicians, in its recent examination, directed as follows; "Describe a case of acute eczema of the face, and the treatment that you would adopt." The College of Surgeons propose as one of its questions: "Syphilitic lepra; describe its diagnostic marks, and the condition of general health which commonly accompanies it. Give an outline of the probable previous symptoms of the case, and of the treatment. For the medicines that may be required, write the prescriptions in full." At a military examination at Netley, it is asked: What are the diseases originating in vegetable fungi: and what are the fungi by which they are caused?—*Jour. Cutaneous Medicine.*

The Ancient Treatment of Alopecia.—From the writings of *Paulus Æginetu*, we learn that the general principles of treatment of alopecia followed by Galen were: purging, shaving, and local stimulants. Tar and tar-water were advocated by Dioscorides. Pliny recommended bear's grease, also bull's gall with soda. Preparations of arsenic were used by others. The Arabians were the first to introduce cautharides.

Bites of Insects.—Linnæus informs us that the seeds of the absinthium maritimum are deadly to the flea, and it is said that the odor of the elder is equally obnoxious to other insects. Cattle, on a hot day, may be seen to cluster round the elder for protection against the sting of flies. Dr. Erasmus Wilson believes that the perfume of the chamomile is destructive of the acarus scabiei, and incorporates it in pomades for the treatment of scabies. Bazin was wont to recommend, for the same purpose, an unguentum anthemidis. Giornale Italiano delle Malattie della Pelle, reminds us that an infusion of chamomile flowers has been recommended as a wash to the skin, for the purpose of protection against gnats. Gnats are said to shun the chamomile flower; and if such be the case, it would be easy to convert the essential oil of the anthemis into an agreeable lotion like that of lavender water or eau de cologne.—*Jour. Cutaneous Medicine.*

Dermatological Museum.—The Dermatological Museum in Paris, associated with the Saint Louis Hospital for Diseases of the Skin, has in its collections models of different diseases of the skin, which are considered by Erasmus Wilson, and other dermatologists, the most perfect and true to nature of any hitherto known; they are the work of an eminent artist-modeller, M. Baretta. They are composed of a comparatively indestructible material, and admit of being washed when discolored or stained with dirt and dust.

Use of Chloride of Gold.—Conheim first demonstrated the terminations of the nerves in the cornea, by means of chloride of gold.

Elevated Regions for Consumption.—At a recent meeting of the Medico-Chirurgical Society, Dr. Weber read an able paper setting forth the advantages to be derived from prolonged residence in elevated climates. He showed:

1. That the elevated regions deserve greater attention in the management of consumptive tendencies and affections than they have hitherto received.
2. That they deserve this attention not only as summer, but even more so as winter, health resorts.
3. That without under-rating the value of maritime and other low-level health resorts, the elevated localities offer great advantages in case of early consumption and tendencies to consumption, in the disposition to catarrhal pneumonia, and the results of this disease, particularly the so-called tubercular (cheesy) deposits, and tubercular (pneumodic) infiltrations.
4. That in such cases the occurrence of fresh catarrhal and other acute intercurrent affections appears to be less frequent in high-level than in low-level health resorts.
5. That the tendency to absorption and fibrous transformation or cicatrisation of deposits is promoted, and the tendency to the breaking down of tissues and formation of cavities is counteracted in elevated health resorts.
6. That the tendency to hæmoptysis is diminished, and not, as usually stated, increased, in elevated localities.

Dr. Weber concluded his paper with a tribute of gratitude to the late Dr. Archibald Smith, to whom he is indebted for much valuable information on medical climatology, especially with regard to elevated regions. —*Med. Press and Circular.*

Provincial Insane Hospital.—The number of patients admitted into the Provincial Hospital for the

Insane, Halifax, N. S., during the past year, was 225. Recoveries, 20 or 23 per cent. of the admissions. Deaths, 14, or 7.3 per cent. of the resident patients.

THE EARLIEST WRITER ON CARBOLIC ACID.—We are indebted to Dr. Lemaire, of Paris, for the earliest publications on carbolic acid. In 1861, three essays on its uses were published by him, and in 1863 he wrote an interesting monograph on its uses in surgery and medicine.

GUN-SHOT WOUNDS PENETRATING THE ABDOMEN.—In the Crimean war, 118 cases of gun-shot wounds penetrating the abdomen occurred, with deaths, 102; recoveries, 16; showing a mortality of 93.76 per cent. A more favorable result was obtained in our late war: Of 414 cases there were 308 deaths, and 106 recoveries, giving a mortality of 74 per cent. When the bladder was perforated through the peritoneum, permitting the urine to escape into the peritoneal cavity, the records of both wars show inevitable fatality.

CASES OF ŒSOPHAGOTOMY.—David M. Cheever, M.D., Boston, Mass., finds, after a diligent search, that only 21 authentic "Cases of Œsophagotomy for the Removal of Foreign Bodies" have been published, including his own. These cases show a mortality of 4, and 17 recoveries. In œsophagotomy, as well as in strangulated hernia, urinary extravasation, and croup, the danger is in delay.

THE NOMENCLATURE OF DISEASES.—Since 1857, the most eminent English physicians and surgeons appointed by the Royal College of Physicians, have been engaged in drawing up a "Nomenclature of Diseases." This list is finished, and contains more than 1,100 diseases, deformities, and injuries. Upon the recommendation of Sir Thomas Watson, the British Government granted a gratuitous distribution of 20,000 copies, at a cost of about $8,000, in order that every registered practitioner might have a copy. Why cannot this Nomenclature be adopted in this country? A copy, in simple binding, costs in London, only from two to three shillings.

ANOTHER MONSTROSITY.—A short time ago a still-born monstrosity was removed from the wife of a joiner, at Schkendnitz, Germany. It had a large thorax; was of normal length. Two well formed and shaped heads were seen, covered with hair between the shoulders; the features well wrought, each head being on a long but strong neck, and between the two necks a third arm projected, which was larger than the two normal arms; the hand of this third arm had two thumbs in an opposite direction, producing the impression of two arms having been united in one. The fœtus was living the day before birth. The time of pregnancy was normal.—*The Medical Archives.*

RYE-MEAL.—The nutritious power of rye-meal is a little less than that of flour, and the proportion of the nitrogenous to the carbonaceous constituents is as 1 to 9.4.

LOZENGES OF MUSCULINE.—Pastilles of musculine are prepared in Paris, with dried fillet of beef; each pastille contains 45 grains of meat. These are prescribed to infants with diarrhœa, and as the taste is completely disguised, they take them without repugnance.

EFFECTS OF TEMPERATURE ON THE MUSCULAR SYSTEM.—M. Chononlevitch, of St. Petersburg, has recently published the results of a very important investigation on certain physical and physiological properties of muscle. He briefly summarises his conclusions as follows:

1. When heat acts on a muscle at rest, it produces two effects, the one physical and the other physiological. The physical effect is observed only between the temperatures of + two and + twenty-eight degrees centigrade. Between these limits the muscle acts under the influence of health, directly contrary to the effect on all natural bodies, it contracts by heat and expands by cold.

2. Above twenty-eight degrees centigrade, this purely physical influence is complicated with another action of a physiological nature. If the temperature be raised uniformly up to forty or forty-one degrees, a contraction is produced, of which the extent increases between thirty-five and forty-one degrees. The muscle is in a state which the author designates as "caloric rigidity."

3. If it be attempted to produce caloric rigidity in two muscles, one of which has been separated from the body two or three hours before the other, it will be found necessary to employ a higher temperature for the former muscle.

4. The volume of the muscle diminishes during rigor mortis.

5. The specific gravity augments under the same influence.

6. The absolute weight diminishes at the same time.

7. The volume of the muscle also diminishes during caloric rigidity.

8. The mechanical tension of muscles causes also a diminution in their volume. This, according to the mechanical theory of heat, is in accordance with the succeeding fact.

9. In muscles (principally living muscles), a certain quantity of heat becomes free, under the influence of mechanical extension.—*Med. Press and Circular.*

EFFECTS OF BREATHING COMPRESSED AIR.—Dr. G. von Liebig has just published in the *Zeitschrift für Biologie* a paper in which are communicated the results of numerous experiments on the effects of breathing air compressed by a pressure of from 320mm. to nearly 500mm. of mercury in excess; or, in other words, of breathing in a chamber in which the barometer would stand at from 43 to 50 inches, instead of 30 inches. Similar experiments have been undertaken by Lossen, Vivenot, and others, with varying results. The apparatus required is large and expensive, and considerable experience and practice in both operator and subject are required to arrive at satisfactory conclusions. The general results obtained by Dr. G. von Liebig are: 1. That the number of respirations under high pressure, when the subject is accustomed to the mode of breathing required, does not greatly differ from that occurring at ordinary temperatures 2. That the quantities of air respired do not materially differ under the two conditions. 3. That the amount of carbonic acid eliminated under the two conditions is almost identical.

New Publications.

BOOKS RECEIVED.

WEDLOCK, OR THE RIGHT RELATION OF THE SEXES, ETC. By S. R. WELLS, Author of New Physiognomy, etc. New York: S. R. Wells, Publisher, 389 Broadway. 1869.

THE MEDICAL REGISTER OF NEW YORK CITY, BROOKLYN, AND VICINITY. For the Year commencing June 1, 1869. JOHN SHRADY, M.D., Editor. New York: J. M. Bradstreet & Son. 1869. Pp. 326.

Original Communications.

CONTRIBUTIONS TO THE CLINICAL HISTORY OF SURGICAL DISEASES OF THE LARYNX.

By J. SOLIS COHEN, M.D.,
OF PHILADELPHIA.

MORBID GROWTHS IN THE LARYNX.

No. III.

Multiple Fibrous Tumors of Larynx. Intended Removal after Performance of Tracheotomy. Death from Anæsthetic at Initial Operation. Post-mortem Appearances. Microscopical Examination of Growths.

JOSHUA N——N, æt. 26, residing in Philadelphia, was brought to my office February 14, 1869, by Dr. James Collins for laryngoscopal examination. The patient has been under Dr. Collins' care for some eight months with laryngeal difficulty, which had not yielded to internal remedies, or the administration of astringent inhalations. Although requested several times to visit me in consultation with his physician, he had declined to do so. The patient was pallid and emaciated, breathed with marked stridulous inspiration, and talked in a rough, hoarse, somewhat muffled voice. Immediately upon hearing the inspiration and vocalization, I remarked that we would find a tumor affecting the vocal cords, or else paralysis of the muscles opening the glottis—the dilators of the glottis, as we may term them.

Upon introducing the laryngeal mirror I at once perceived an elastic-looking red tumor, the size of a long white bean, occupying the entire length of the left ventricle, and bulging out into the cavity of the larynx far enough to reach the opposite cord anteriorly, and to extend to the middle of the glottis posteriorly. Jutting over the posterior portion of the right cord, which was thickened, was observed another and much smaller growth of similar external appearance. The position of these growths was such as to contract the space for breathing, even upon deep inspiration, into a very small triangular space posteriorly. The ventricular bands upon both sides were very much swollen, as were also the two ary-epiglottic folds. The mucous membrane covering the arytenoid cartilages and the corpuscles of Santorini was very œdematous, and the posterior portion of the larynx was very much enlarged, but whether from infiltration of plasma or mere œdema was doubtful. This portion of the larynx was of the size and thickness of two large thumbs placed side by side.

The epiglottis was not swollen. It was very erect, and rather pale in color. Some thickened sputum was occasionally expectorated, but in slight amount. There was but little cough, and that laryngeal. Deglutition was normal. The appetite was gone, and emaciation had been progressing steadily for some time. The patient had been in the United States Army during the late war, and had contracted syphilis, of which he had been apparently cured.

The patient was meagre, yet there was a remarkable fulness about the exterior of the larynx, rendering it difficult to determine the positions of the thyroid incisure and the crico-thyroid membrane. The thyroid gland appeared rather high up and enlarged.

The patient breathed without difficulty, but more rapidly than usual, and with very marked stridor on inspiration. Upon closely questioning him, he stated that for two months past he had experienced difficulty in sleeping from spells of impending suffocation; but that he was free from similar attacks during the daytime. We subsequently learned that upon two occasions he had nearly suffocated in the streets, and had to be brought to his home.

The patient presented the physical appearance of phthisis pulmonalis, and gave evidence, on percussion, of the existence of tubercles or other element of consolidation in the upper portion of right lung. It was extremely difficult to practise auscultation, inasmuch as the deep sonorous râle educed from the larynx by the obstructing tumors overpowered the sounds of the vesicles and small bronchial tubes. This examination therefore was highly unsatisfactory. The percussion pitch and sense of resistance, however, led to the opinion that tubercles were present.

The patient considered his laryngeal trouble to have been about a year's duration, and stated that at times his voice would be completely aphonic.

Whatever the nature of the case, it was evident that the tumor on the left side should be removed as early as possible. I expressed an opinion that it would be extremely difficult to tear it away with forceps, on account of its apparent sessile attachment, especially if it extended far within the ventricle, which might be the case. I did not feel justified in making an attempt to cut it off with scissors, or chop it with a knife, inasmuch as there would be danger of suffocation from a flow of blood, or its clotting; and therefore suggested either splitting the larynx externally, and its removal after the laryngotomy; or its removal through the mouth by the loop of a galvano-cautery.

With a view of testing the propriety of the latter measure, the patient attended at my office for several successive mornings to undergo manipulations within the larynx with a probe; this was continued on each occasion until there were some signs of irritation, when pulverized tannin was blown into the larynx in the hope of producing some astringent local effect which should facilitate respiration. The tannin abated the suffocative paroxysms at night, and rendered breathing easier. The manipulations were well borne, that is to say endured, by the patient; but he made such complaint of the sense of smothering induced by the presence of a fine probe at the side of the tumor, that I soon began to feel some hesitation regarding the propriety of introducing an instrument within the chink of the glottis for any purpose whatever, explorative or otherwise, for fear of inducing spasm which might prove fatal at once, or at least require the prompt performance of tracheotomy on the instant.

I felt as though the œdematous folds of mucous membrane ought to be scarified, but inasmuch as they did not exercise any direct influence in narrowing the glottis, and there was evident danger of provoking fatal spasm by the presence of the blood which would of necessity flow upon the tumor and obstruct the already contracted breathing space, interference with the knife was deemed unjustifiable.

On a second consultation with Dr. Collins, I expressed the opinion that the tumor must be removed by laryngotomy; but that in view of the œdematous condition of the parts, the unknown character and extent of the growths, the previous opening of the trachea and insertion of a canule would be advisable, so as to secure ample room for respiration; and at the expiration of two or three weeks, by which time the wound around the canule would heal, the larynx could be divided, and both growths be removed.

Dr. Collins concluded to perform tracheotomy at any rate as suggested, and to await further develop-

ments, as to the propriety of subsequent thyrotomy, or an attempt to destroy the growths through the mouth by the galvano-cautery.

On the following day, 21st inst., I accompanied Dr. Collins to the patient's residence, where we met Drs. Packard, Finn, and Hinkle.

The patient was cheerful, and eager to undergo the operation, as he had had an unusually severe suffocative paroxysm during the night. A laryngoscopal examination was made by each physician present, and a marked increase of the thumb-like swellings of the arytenoids noticed.

The anæsthetic used was the mixture of ether and chloroform 2 to 1, the patient being in the horizontal position. The patient at first yielded gently to the influence of the anæsthetic, but soon became excited, raised himself once or twice almost to the sitting posture, when suddenly his pulse stopped, respiration ceased, the lips and face turned blue. After one or two ineffectual attempts to restore respiration, by the application of air, ammonia, and artificial respiration, Dr. Collins performed tracheotomy as rapidly as he could, and the tube was inserted. Artifical respiration was resumed, and kept up for half an hour; the chest was repeatedly inflated by breathing into the tube; the galvanic battery was applied, but all in vain. The initial operation was final.

We obtained permission to examine the larynx; further examination was denied. The post-mortem was made 48 hours after death by Dr. Packard, with the assistance of Dr. Collins and myself. The skin and all the tissues generally were much thickened. Dissection revealed the presence of a tumor on the exterior of the larynx, just above the thyroid gland. The larynx, with several tracheal rings, was removed with some trouble, and submitted to more minute examination a few hours later.

We found a great deal of very dense fibrous tissue around the outside of the thyroid cartilage. The cricothyroid muscle on the right side was pale and its fibres were thin; that on the left side was quite healthy. The fibrous textures surrounding the parts were dense, thickened, resembling cartilage under the knife.

The epiglottis showed two or three spots of apparent abrasion on its laryngeal surface near its root.

In the interior of the larynx, on the left side, we found a firm, elastic growth, occupying the entire length of the ventricle, which it filled and distended, but without extending into the sac of Hilton; it projected beyond the vocal cord for an eighth of an inch. It was the size of a long bean, and had evidently taken its origin from the upper surface of the vocal cord. On the right side, above the vocal cord, which was much swollen and thickened, but normal in color, was a similar growth, filling up the ventricle of that side, and just extending beyond the ventricle posteriorly, the distance of a line or so at its broadest part.

The glottis seemed completely filled by these growths, so that when the parts were placed in position, it required some manœuvring to exhibit the space through which the patient had breathed, which seemed much smaller than it had appeared in the laryngoscope.

The ary-epiglottic folds were œdematous, and seemed to be swollen in part from development of fibrous tissue beneath them; but they were not dissected off to ascertain whether this were the case. The mucous membrane covering the arytenoid cartilages and the corpuscles of Santorini, and also the ventricular bands, were in a similar condition.

On the exterior of the larynx there was strikingly present a tumor which on examination proved to be bi-lobed, resembling in appearance the prostate gland; the larger lobe, when cleaned of its investing tissue, being about the size of an elongated chestnut, and occupying the right side of the larynx; the lobe on the left side was about one-third as large as the other; both were symmetrical in configuration, and of very firm consistence, conveying the idea of cartilage. These tumors were inclosed in a thick membrane, easily dissected off, and distinctly fibrous in texture. The growths were dissected from their extraneous attachments, and found to have taken their origin from the anterior portion of the cricoid cartilage.

On the posterior portion of the cricoid cartilage we found on the right side a fifth tumor covering its entire length, crowding it inwards from the thyroid cartilage, and projecting into the pyriform sinus. On the left side posteriorly, we found another tumor much smaller, and also connected with the outer surface of the cricoid cartilage.

These two last tumors were firmly connected in their entire length to the cricoid cartilage, and were evidently of like character with those on the outside.

So that we had, in this case, six distinct growths; one in each ventricle of the larynx; one on each side of the cricoid cartilage anteriorly; and one covering each lateral posterior surface of the cricoid cartilage.

Dr. Collins handed the specimen for microscopic examination to Dr. Tyson, microscopist to the Philadelphia Hospital; who wrote to him that "the anterior tumor is composed of a dense stroma of fibrous tissue, in the meshes of which, and floating freely, are small cellular bodies, round and oval, usually about the size of a white blood corpuscle, smooth or but slightly granulated, often with a distinct nucleus. In addition there are smaller bodies, elongated and varying in degree between those already described and perfect connective tissue corpuscles, with bellied centres, terminating on either side with long slender tails. The nuclear bodies are far most abundant, the others being occasionally found.

"In the tumors on the posterior portion, the same elements are to be seen as above described, except that the cellular elements are somewhat more granular, and the condition of the whole tumor indicates more advanced degeneration.

"In the tumors on the vocal cords there is precisely the same cell element, though the free nuclei are more numerous than in the other tumors, being found in aggregations somewhat similar to the nuclei in the drawing illustrating Bennett's 'fibro-nuclear tumors' on p. 420 of the 2nd Am. Edition of Paget's Surgical Pathology. The fibrous tissue present in the tumor on the cord was apparently in excess, and of the pure white fibrous kind.

"These elements appear to me to be those of the old 'fibro-plastic' of Lebert, the 'recurring fibroid' of Paget, or the 'Spindle-celled Sarcoma' of Virchow, though in the tumor on the larynx, at least, there was rather more of the pure fibrous element than properly belongs to these tumors. Perhaps the appearances correspond more closely with those of Bennett's 'fibro-nuclear' than any other individual descriptions; but these latter are closely allied to Paget's recurring fibroid, and included by Virchow under his 'Sarcoma fuso-cellulare.'"

OPIUM POISONING TREATED BY ATROPINE.

By WM. C. HUNTER, M.D.,
NEW YORK.

On the 28th of last March, at about 2 P.M., I was sent for in urgent haste to visit a man who had been for a

number of months under my care with phthisis. He was about 22 years of age, a son of a physician retired from practice. His health had by progress of the disease mentioned been very much impaired. To procure sleep he occasionally resorted to opium. At 10 o'clock on the evening previous to my visit he had taken on going to bed a quantity of McMunn's Elixir. At two o'clock the next morning the contents of the phial (℥ j.) were finished. He rose at eight the same morning, went to breakfast with the family, and afterwards retired to his room, when at about 1 P.M. he was found profoundly unconscious. He had not, as afterwards learned, taken opium in any form after breakfast. On visiting the patient he was found apparently fatally narcotised, with cold surface, livid countenance, contracted pupils, and insensible to any external stimulus. An occasional respiratory act could be excited at long intervals by artificial respiration. His condition was so desperate that a well known medical gentleman of experience and skill who was present, bade us good day, and in passing out of the house told the father that his son was dead, or at least if not, he need entertain no hope of his recovery. The length of time which had elapsed since the reception of the drug, together with the condition of the patient, indicated not so much the evacuation of the stomach by pump or otherwise, as to antidote the amount already absorbed into the circulation. Five drops of a solution of sulph. atropia gr. ij to ℥ j were then injected hypodermically. Artificial respiration, coffee enemata, etc., were meantime, employed. In a few moments the pupils, which were anxiously watched, began very slowly to dilate, and with it slightly less difficulty in obtaining an inspiration. In fifteen minutes another injection of the solution of like amount with the first was administered, which was followed by a widely dilated pupil and corresponding improvement in respiration. In the course of two hours he became conscious and rational. He recovered fully, but finally succumbed about one month later to the disease of which he had been so long the subject.

Three points of interest are to my mind connected with the case. 1st. We have in atropia subcutaneously employed, a very reliable means of resuscitating persons in the worst stage of opium narcotism. 2nd. That there should have been such an amount of time (six or eight hours) before the symptoms of narcotism presented themselves. Absorption of the poison (and that a liquid) must have been retarded or prevented for a time. If this is the correct view of the matter, it is a significant hint in medicating our patients. 3d. In the few cases of apparently fatal narcotism which have come to my notice there has been in nearly all bronchopneumonia—in one case it proved fatal. Is not the complication due to diminished pulmonary circulation during partial suspension of respiration, which attends the usual mode of resuscitating narcotised persons? The case given induces such belief, for no such symptoms followed, and the length of time during which respiration was partly suspended was very much less by the treatment with atropia than without its use.

355 Sixth Avenue.

Brooklyn City Hospital.—The number of patients treated in this valuable institution during the year 1868, was 1660; 947 surgical, and 713 medical. The board of managers make an earnest appeal to the public for a needed endowment of free beds.

An Orthopedic Infirmary was added to this hospital in June, 1868. 125 patients were treated in the first six months of its operation.

SUCCESSFUL REMOVAL OF A LARGE STONE,

BY DILATATION OF THE FEMALE URETHRA.

By HAZARD A. POTTER, M.D.,

GENEVA, N. Y.

Mrs. M——, residing at Penn Yan, Yates County, N. Y., has been afflicted about four years with difficult and painful micturition. About four weeks since she consulted me in regard to her case. On examination with a common female catheter, I detected a large stone in the bladder, and determined to remove it by dilatation if possible. She was placed under chloroform by my friend, Dr. George N. Dox, of this village, and on further examination the stone was found attached to the mucous membrane of the bladder. As soon as the patient was thoroughly under the influence of the chloroform, I introduced a pair of two-pronged dilating forceps into the bladder, and dilated the urethra from *within outwards*. The urethra was readily dilated in five minutes to its full capacity. Gradually lessening the dilation from *within outwards*, I passed a pair of slender forceps between the blades of the dilating forceps, and having seized the stone, released it from its attachment. Having removed the dilating forceps, I passed my fore-finger into the urethra, palmar surface upwards, brought the stone to the urethra, guiding it and pressing heavily downwards with my fore-finger, and drawing steadily on the forceps.

The stone was thus removed in about fifteen minutes from the time of commencing the operation. It is oblong in shape, weighs about one ounce, and is two inches in length by one and one-eighth in breadth. The urethra was not ruptured, and the patient urinated naturally the same night, with very little voluntary discharge of urine at any time since the operation. She has perfectly recovered, with the urethra in its normal condition.

This shows the great capacity of the urethra for dilatation, and that it can be as readily dilated in a few minutes under chloroform as by the long and tedious sponge dilatations spoken of in the books. The dilatation having been commenced from the inside of the bladder outwards was probably the cause of the speed and safety of the operation; and it seems to me that such is the only proper mode of stretching the urethra in these cases.

Geneva, N. Y., July 30, 1869.

CYSTO-SARCOMA OF THE PALM OF THE HAND.

By J. H. POOLEY, M.D.

YONKERS, N. Y.

In the Record for July 1st, I notice a description of a cysto-sarcomatous tumor removed from the palm of the hand by Dr. J. R. Wood, with regard to which he remarks that he has never seen or heard of such a growth in that situation before. This induces me to put on record a similar case which has lately presented itself in my practice.

Morris Daley, a large, powerful Irishman, laborer, chiefly occupied in drilling rocks for blasting, comes to consult me for a troublesome swelling in the palm of the right hand. The swelling is smooth-ovoid, about the size of a pigeon's egg, painless, somewhat tender on firm pressure. He can give no very clear account as to how long it has existed, but says it is certainly more than a year.

He attributes it to the irritation produced by his

work (striking all day with a heavy sledge), and says it sometimes pains for a while after a hard day's work. It has been treated by somebody with tinct. iodine, with which the surface is now discolored; it also bears the marks of having had a seton drawn through it.

I removed it and found it to be a cysto-sarcomatous tumor, with semi-fluid contents, and unusually thick cyst wall, which at one end was duplicated and layered like the coats of an onion. This thickening, I suppose, is attributable to constant pressure and irritation from the handle of the hammer.

It had no connection with the thecæ of the flexor tendons, except by a few thin fibrous bands.

The wound healed at once, leaving no tenderness in the scar, or interference with the motion of the fingers.

This is the only tumor I have ever seen in the palm, but I have several times met with similar growths in other parts of the hand, as, for instance, on the inner surface of the thumb, and on the outer surface of the index and little fingers.

Original Lectures.

REMARKS ON THE TREATMENT OF DEFORMITIES ARISING FROM THE CONTRACTION OF THE CICATRICES OF BURNS,

MADE BEFORE THE NEW YORK MEDICAL JOURNAL ASSOCIATION.

By ALFRED C. POST, M.D.,

PROFESSOR OF SURGERY IN UNIVERSITY MEDICAL COLLEGE.

Part II.

I PRESENT here illustrations of two cases of ectropion of the lower lid resulting from burns, and treated by free division of the cicatrix, and the transposition of flaps dissected up from the integument covering the masseter muscle. The first case was published in the *New York Medical Gazette* for Jan. 19th, 1842, from which it is here transcribed. Frederick Iseman, aged seven years, had the left side of his face badly burned about three years ago, in consequence of his clothes taking fire. When the sore healed, there was left a hard wrinkled cicatrix of a reddish color, drawing down the lower lid, and occasioning an eversion of its whole internal surface. The conjunctiva of the lid which was thus exposed to the air was dry, and resembled in its appearance the integument covering the vermilion border of the lips. The margin of the lid was much elongated. On the 5th June, 1841, at 2 P.M., I performed the following operation, assisted by Doctors J. Kearney Rodgers, Blakeman, Trudeau, and Buel. I first made an incision immediately below the everted lid, by which I detached it from the cheek. I then cut out a V-shaped piece from the lid, and brought the edges of the incision together with a suture, by which the tarsal edge of the lower lid was brought into apposition with the corresponding margin of the upper lid, leaving, however, a considerable chasm between the lower lid and the cheek. I then dissected a vertical flap from the integument covering the anterior edge of the masseter muscle, about two inches in length and five-eighths of an inch in breadth, leaving it attached at its upper extremity by a neck three-eighths of an inch in breadth. The flap was then brought around so as to fill up the chasm between the lower lid and the cheek, and was secured in its place by ten fine sutures. The sides of the wound from which the flap was taken were brought together and secured by three sutures, fortified by adhesive straps. The only situation in which the sides of the wound were not brought into contact was at the angle below the twist in the neck of the flap. A piece of lint dipped in iced water was applied over the wound, and directed to be moistened as often as it became dry or warm.

8 P.M. No pain nor swelling about the wound.

June 6th. The flap appears red, but there is no pain nor swelling.

June 7th. He complained in the afternoon of some pain in the wound, but everything appears to be going on favorably.

June 9th. Rem ved three of the sutures.

June 10th. Removed three other sutures. Union by the first intention has taken place around the greater part of the flap; but suppuration has occurred at the extremity towards the nose.

June 11th. Removed all the remaining sutures. I found that union had taken place throughout the whole wound, except at three points, viz., the angle below the twist in the neck of the flap, the junction of the extremity of the flap with the side of the nose, and the inferior angle of the part of the wound from which the flap was taken.

June 20th. The wound has healed throughout its whole extent. The eversion appears to be entirely cured. The patient has the full power of opening and closing the lids. The twist at the neck of the flap is almost entirely effaced; but the outer canthus is crowded somewhat towards the nose, so as to make the affected eye appear smaller than the sound one.

The plates, which I now exhibit, will give a clearer idea of the character of the deformity, and of the results of the operation.

Plate 1st represents the appearance of the eye before the operation.

Plate 2d exhibits its appearance five months afterwards.

The second case has not been published. The following are the details: Harriet Augusta Youngs, ætat. 2½ years. Ectropion of right lower lid. The middle portion of the lid is drawn down, everted, and adherent to the cheek, where there is a firm wrinkled cicatrix, adhering to the nose, and drawing its tip to the right side. The conjunctiva is exposed to the extent of half an inch from above downwards. The patient cannot entirely close the lids. The eye, from its exposed situation, is subject to inflammation from slight exciting causes. There is also a considerable cicatrix upon the forehead, immediately above the right eyebrow. Both hands are scarred in a similar manner. All these cicatrices were the result of a burn occasioned by falling on a hot stove, when the child was six months old.

May 25th, 1842. I operated in the presence of Dr. Hitchcock, of the army, and Doctors Hoffmann, Hobart, Hubbard, Buck, Blakeman, and Westmacott. I made a horizontal incision below the everted lid, by which I detached the lid from the cheek. I then cut out a V-like portion of the margin of the lid, and excised a horizontal flap of the redundant conjunctiva. To fill the vacancy occasioned by the replacement of the lid, I dissected a vertical flap from the cheek about two inches in length, and a little more than half an inch in breadth. There was a moderate flow of blood, but no ligature was required. After waiting a sufficient time to allow the oozing of blood to cease, I brought the edges of the wounds together, and retained them with sutures, in the following order: first, the wound in the edge of the lid; second, the wound from which the flap was taken; third, I united the lower edge of the

flap to the cheek; and lastly, the upper edge of the flap to the eyelid. Fourteen fine sutures were employed. Adhesive plasters were also applied over the lower wound. Compresses wet with cold water were applied over the whole. The child bore the operation remarkably well.

28*th*. Since the operation, the patient has at times been restless and irritable, and sometimes a little feverish. There has been considerable swelling on the side of the face on which the operation was performed. This morning the nasal extremity of the flap has become detached from the nose, and suppuration is beginning to be established at that point.

29*th*. I dressed the wound. I found the sutures loose, and removed them all. Adhesion had taken place between the edges of the wound from which the flap had been taken, and along the lower edge of the flap where it was attached to the cheek. There was very slight union between the upper edge of the flap and the eyelid, and between the edges of the divided lid. I brought all the edges of the wound together, as accurately as possible, with adhesive plaster.

30*th*. The slight adhesions between the edges of the divided eyelid, and between the lid and the transplanted flap, have given way; the inner edge of the flap has separated about three-eighths of an inch from the nose. I dressed the wound in the same manner as yesterday. Since the wound was dressed yesterday, the child appears much more cheerful.

June 12*th*. No further union has taken place; on the contrary, a partial separation has occurred in the portion of the wound which had previously united. I commenced to-day the application of a solution of nitrate of silver (gr. v to ℥ j) at each dressing. I also directed the following mixture to be administered internally:

℞ Pulv. Rhei
Soda Bicarb. ℥ ăă ss
Pulv. Ipecac. gr. iv
Aq. Anisi ℥ iv.

A teaspoonful to be given three times a day.

14*th*. The wound presents, as it has done for some time past, a dirty grayish appearance without granulations. I applied the solid nitrate of silver to the surface.

15*th*. The wound presents a better appearance.

July 5*th*. Since the last report, the processes of granulation and cicatrization have been steadily advancing, and the wound has now completely healed. There is a notch at the margin of the lower lid, where the edges of the wound were brought together, and a slight degree of eversion at the same point; but the lids can be closed, and the whole appearance of the eye has been greatly improved.

The drawings exhibit the appearance of the parts before and after the operation.

I regret that I lost, by the burning of the University Medical College building on Fourteenth street, the illustrations of a successful blepharoplastic operation which I performed by dissecting a rhomboidal flap from the upper part of the cheek and the lower part of the temple, and gliding it towards the nose according to the French method.

In performing plastic operations for the relief of this class of deformities, whichever method be selected, two precautions are specially important to be observed. 1st. The flap should be sufficiently large, completely to fill the chasm, and to allow for the shrinking which follows its transplantation. 2d. It should be free from tension, when adjusted in its place by sutures.

When the orifice of a mucous canal or cavity is much diminished in size, or entirely closed, by the contraction of a cicatrix, the orifice may be enlarged or reproduced by a free incision; but if nothing further be done, the contraction or closure will certainly return. No difficulty will be encountered in maintaining the full size of the orifice, if the edges of the incision can be lined with flaps of mucous membrane dissected from the adjacent parts. In default of mucous membrane, flaps of thin and delicate skin may be employed to line the edges of the incision. But if neither skin nor mucous membrane can be obtained for the purpose, it will be extremely difficult to maintain the opening. All that can be done in such cases will be to keep the orifice distended for a very long time by means of plugs of ivory, metal, or other suitable material.

In the third class of deformities resulting from the contraction of cicatrices, where the features are dragged out of their normal position, the treatment will mainly consist in the excision or free division of the cicatricial bands, and the transplantation of tegumentary flaps to fill up the chasm occasioned by the replacement of the distorted feature. The feature may also be supported in its restored normal position by strips of adhesive plaster.

The fourth class of deformities, in which opposed surfaces of skin have become firmly and closely adherent to each other, offers great difficulties in the way of treatment. For example, where the fingers have become webbed together in consequence of the healing of a burn, if the web be divided, and the fingers be separated from each other, the granulations from the commissure have a strong tendency to push downward and fill up the space between the fingers so as to reproduce the web; and this tendency will not be effectually resisted by enveloping each finger separately in a bandage, however carefully the dressings may be applied. The most efficacious mode of resisting this tendency is by the application of long and narrow strips of adhesive plaster, so as to make firm pressure upon the commissures. These should be kept in place by other strips applied in a circular or spiral direction. In addition, the fingers should be widely separated from each other, and carefully secured by strips of adhesive plaster to the divisions of a wooden or metallic splint, adapted to the posterior or dorsal surface of the forearm, hand, and fingers. While the tendency to the reproduction of the web is resisted by the means which have been indicated, the sore is very apt to show an obstinate indisposition to heal. Much patience and perseverance will be required to accomplish the desired result.

In the fifth class of deformities, in which one of the limbs has become fixed in a state of extreme flexion, or of complete or exaggerated extension, or of forced adduction or abduction, the first step in the treatment will consist in the free division of the cicatrix throughout its whole breadth and thickness. In some cases, benefit will be derived from making a free division of the inodular tissue by several parallel incisions at some distance from each other, as recommended by Dupuytren. In most cases of this class of deformities, the free division of the cicatrix will be preferable to its excision; but when the deformity is produced by a prominent and narrow cicatricial band, excision of this band may be performed with advantage, and the dressing may then be so applied as to favor the contraction of the granulations in the direction of the circumference rather than of the length of the limb. As soon as the cicatrix has been thoroughly divided, the limb should be freely moved in the opposite direction, to as great a degree as this movement can be accomplished by a moderate force, and it should be secured

in that position by bandages or strips of adhesive plaster, confining it to an appropriate splint. I generally prefer a metallic splint having a certain degree of flexibility, so that it can be accommodated to the shape of the limb, and to its progressive improvement. The splint may be made of sheet brass, zinc, tin plate, or iron. If it be made of sheet iron, it should be painted to keep it from rusting. The surface of the sore may be covered with lint spread with cerate, or with some other appropriate ointment, such as Ung. Resinos, Ung. Lap. Calamin, Ung. Ox. Zinc, &c. During the early period of the treatment, the dressings should be repeated daily, and, at a later period, at intervals of two or three days. At each dressing, passive motions should be quite freely employed, and the limb should be stretched with a moderate degree of force in a direction opposite to that of the deformity. The passive motion and the stretching of the contracted tissues occasion severe pain to the patient, and much firmness is required on the part of the surgeon, to keep up the fortitude of the patient, and to prevent him from yielding to discouragement, and from abandoning the treatment. The healing process takes place very slowly. Weary days, and weeks, and months pass by, and perhaps scarcely any appreciable progress is made. But the surgeon must not lose his courage: if the patient's health can be maintained, perseverance in the treatment which has been indicated will often be crowned with success, even in cases which for a long time seemed very unpromising. The case which I now present to you illustrates, in a remarkable manner, the completeness of the success which may sometimes be obtained in overcoming great deformity, after a very protracted treatment, and under very discouraging circumstances. Sarah Sharp, the patient before you, is now nearly eleven years old. At the age of eleven months, she was badly burned on the posterior surface of her left forearm and hand, by the explosion of a kerosene lamp. In the treatment of the injury, no effort was made to prevent deformity from the contraction of the cicatrix. Within a few weeks cicatrization took place, with backward flexion of the hand upon the forearm, and close adhesion of the opposed surfaces to each other. When the child was two and a half years old, she was brought to the surgical clinic of University Medical College. Up to that time, no attempt had been made to overcome the deformity. The hand was bent completely backwards, its dorsal surface being closely adherent by dense inodular tissue to the corresponding surface of the forearm, and the extremities of the fingers pointing towards the posterior surface of the elbow. I divided the inodular tissue on each side of the posterior surface of the forearm, dissecting up a flap whose free extremity looked upwards towards the elbow, and which remained attached below to the integument of the back of the hand. After this flap had been freely dissected up from the subjacent parts, I was able, by the use of a moderate degree of force, to bring the hand into such a position that its dorsal surface was nearly on the same plane with the dorsal surface of the forearm. The forearm and hand were secured in that position to a wooden splint applied to the palmar surface, and extending from the upper part of the forearm to the terminal extremities of the fingers. The portion of the splint corresponding with the fingers had wide slits opposite to the interdigital spaces. The fingers were secured to the corresponding portions of the splint, by means of narrow strips of adhesive plaster, and the hand and forearm were secured to the splint by means of a roller bandage.

The flap which had been dissected up sloughed throughout nearly its whole extent, leaving a very large space to be filled up by granulations. The sore was dressed with pledgets of lint spread with Ung. Resinos. The dressings were daily removed, and the limb readjusted to the splint. Exuberant granulations grew up from the surface, and required the frequent application of nitrate of silver. The process of cicatrization was exceedingly slow, and the new cicatricial tissue showed an obstinate disposition to contract. To resist this tendency, passive motion was vigorously applied, and the limb was transferred from the wooden splint to a splint of brass, which was gradually bent more and more, until the hand was flexed forward on the forearm nearly at a right angle. The limb was maintained in this position until cicatrization was completed, at a period of about eight months from the commencement of the treatment. During nearly the whole of this time there were made daily visits, at which the sore was dressed, and passive motion was resorted to. At the close of the treatment, the limb was free from distortion, and the hand and fingers enjoyed a considerable degree of motion. During the period of nearly eight years which has elapsed since that time, there has been no return of the contraction. The cicatrix has remained soft and pliable, and the patient has had full power in flexing and extending the hand and fingers. She plays on the melodeon, with both hands, with a considerable degree of skill, and she is now employed as a cash girl in a large dry-goods establishment on 6th Avenue.

On the same principle, I have treated with success a number of cases, in which the fingers were maintained in a state of forced flexion by the contraction of cicatrices. I have made a free division of the cicatrices throughout their whole breadth and thickness, and have then applied the fingers to a digitated splint, to which I have secured them by strips of adhesive plaster. The dressings have been frequently renewed, and passive motion has been employed at short intervals, and to a sufficient extent to occasion considerable pain to the patient. By long perseverance in this treatment, the disposition to a return of the contraction has been finally overcome.

In the sixth variety of deformities, in which the cicatrices of burns form prominent ridges, projecting beyond the surface of the adjacent skin, the treatment consists in shaving off the prominent part of the cicatrix, maintaining firm pressure by means of adhesive plaster and bandages, and frequently applying nitrate of silver to the granulations, as they project beyond the adjacent surface.

A Curious Freak of Hysteria.—Robert H. Chase, M.D. (*Med. and Surg. Reporter*), was called recently to remove a needle from the breast of a young lady, which, when extracted, measured 3 inches in length; its head had been broken off, while the surface presented a corroded appearance. The needle lay diagonally across the chest; its upper end being near the termination of the middle third of the ensiform cartilage, and its lower end was just at the periphery of the left breast. The whole of it was imbedded in the subcutaneous tissue, there being no external orifice nor cicatrix to indicate its entrance. He found upon inquiry that four other needles had been removed from time to time by different physicians from her person.

She could not give a satisfactory reason to account for their insertion, but he believes that these needles had been voluntarily inserted by herself while laboring under a temporary attack of hallucination, caused by that perplexing and multiversant disease, hysteria.

Progress of Medical Science.

Cases of Bright's Disease in New York Hospital.—Gouverneur M. Smith, M.D., in an admirable paper "On the Etiology of Bright's Disease," read April 1, 1869, before the New York Academy of Medicine, gives us the following statistics: The medical records of the New York Hospital present the histories of 308 cases of Bright's disease. Of these 40 were of the *acute* or tubal nephritis; 268 were of the *chronic* variety, in which the kidneys had undergone structural alteration. 1st. In regard to the *acute* form. Of the 40 cases alluded to, 33 were males and 7 females. The nativities were as follows: Ireland, 15; United States, 9; England, 7; Germany, 5; Scotland and Canada, each one; not stated, 2. The occupations of the males were: sailors, 17; tinsmiths and carpenters, each two; miller, puddler, porter, gardener, and other occupations, each one.

Anasarca occurred in 31 cases, ascites in 11, convulsions in one, and threatened coma in one. The average age of the patients was 32 years, the youngest being 14, and the oldest 56 years. The average time under treatment in the hospital was 34 days.

The results of these cases were as follows: recovered, 36; returned to friends *in statu quo*, 2; died, 2.

Second. in regard to the *chronic* form. Of the 268 cases, 233 were males, and 35 were females. The nativities were as follows: Ireland, 93; United States, 77; Germany, 40; England, 23; Sweden, 6; France and Scotland, each 2; Prussia, Sicily, and Prince Edward's Island, each 1; not stated, 14. The occupations were: sailors, 96; laborers, 17; merchants, 9; clerks and mechanics, each, 8; porters, 6; other occupations make up the balance. As throwing some light upon the etiology it may be stated that 58 were of intemperate habits, that 23 attributed their disease to exposure to cold, 7 had been poisoned with malaria, six were workers in lead, and one was an opium-eater. Anasarca occurred in 218 cases, ascites in 78, convulsions in 23. Fifty-seven suffered with impairment of vision, one becoming totally blind. The retinal lesion in many instances took place antecedent to admission, in others it gradually developed while under hospital supervision. The average age of these patients was 37 years, the youngest being 11, and the oldest 71.

The result of these 268 cases of chronic Bright's disease was as follows: died, 135; discharged relieved, 117; by request, 14; insane, 2. Of the 135 cases terminating unfavorably, a large number were admitted moribund, or nearly so.

Autopsies were permitted in 78 instances. In the 57 cases in which no after-death examinations were made, numerous complications were recognized; 11 were admitted moribund; 9 died uræmic and comatose; 9 had congestion of the lungs; 8 had hypertrophy or valvular disease of the heart; 6 had tuberculosis, 3 had delirium tremens; and several had apoplexy, pleurisy, disease of the liver, chronic diarrhœa, chronic uterine disease, and erysipelas. In the 78 post-mortems permitted, the following conditions were observed in addition to those strictly Brightian in character, viz: Cerebral meningitis, 8; hypertrophy of the heart, 33; valvular disease of the heart, 18; lungs congested and pneumonic, 28; œdematous, 22; acute peritonitis, 4; ascites, 21; liver fatty, 23; cirrhosis, 11; abscess, 1; otherwise diseased, 19; spleen enlarged, 4; pancreas, scirrhus, one; ulcerated Peyerian patches, 2; diabetes complicated one of these cases.

With scarcely an exception, the cases exhibited gave structural lesions in addition to those shown in the kidney. He remarks, in passing, that waxy casts have been observed more particularly in the urine of patients suffering with Bright's disease and with chronic suppurating sores.

Tertiary Syphilis.—Prof. Gross (*Med. and Surg. Reporter*) almost invariably combines the bichloride of mercury with iodide of potassium, in the treatment of tertiary syphilis. The subjoined formula is recommended: ℞. Hyd. chlo. corros., gr. ij., potassii iodidi, ʒ ij., syr. sarsa. comp., f. ʒ iij. M. S. dessert-spoonful ter die, shortly after meals.

Treatment of Otorrhœa.—Prof. Gross, at his surgical clinic, in the Jefferson Medical College (*Phila. Med. and Surg. Reporter*), ordered the following remedies in a case of otorrhœa, in a strumous boy eight years of age, whose hearing was impaired in the right ear; there had been a discharge from it for a year: An injection of permanganate of potassa, one-quarter of a grain to the ounce of water, to be used several times a day, following an injection of warm water. To improve the condition of the system, of which this local trouble is merely the manifestation and symptom, the boy was put on the use of the iodide of potassium, two grains, and one-twentieth of a grain of bichloride of mercury, ter die, in a little sweetened water immediately before breakfast and dinner, and at night when retiring.

Excision of Inferior Dental Nerve for Neuralgia.—Prof. Gross, of Phila. (*Phila. Med. and Surg. Reporter*), recently excised the inferior dental nerve, from a young man, æt. 22, who had a violent form of facial neuralgia for three years. All the ordinary remedies against neuralgia had been tried in this case, without avail. The immediate cause of the difficulty was the pressure exerted upon the nerve in the long canal through which it passes. He made an incision along the whole course of that nerve, curvilinear in shape, carrying it nearly as far as the symphisis of the chin, and then perforated the bone with a trephine, and took out the nerve in its entire length. The wound was dressed with the twisted suture.

Since the operation the patient has had no neuralgic pain. On microscopical examination, no evidence of disease was detected in the structure of the nerve.

Carbolic Acid in Scarlatina.—H. T. Cleaver, M.D. (*The Iowa Med. Journal*), states that he has been much surprised by the almost immediate relief afforded by the application of carbolic acid to the inflamed throat in scarlatina. He has used his remedy in 70 cases in the late epidemic in Iowa, in all stages of the disease, and prefers carbolic acid to chlorate of potash and chlorate of iron, as a palliative and curative application. The only unpleasant symptom he has observed after its use in greater strength than he ordinarily administered it, is a temporary impairment of power of deglutition. That it has the power of lessening the exalted action of the heart, and quieting the delirium so uniformly met with in scarlatina, he has no doubt. It modifies the action of the poison, and to some extent averts the disease. In none of the cases where it has been used have dropsical effusions occurred as a sequel, such as he has observed in cases treated with other remedies.

The following is his usual prescription: ℞. Carbolic acid, ʒ ij., dilute alcohol, ʒ ij. Mix a teaspoonful of this to a tablespoonful of water, used either as a gargle or with the mop, depending upon age and ability to gargle —say once every two hours. Of the same give 10 to 20 drops in muc. acacia at same intervals; dose depending upon age of patient.

MANAGEMENT OF AFTER-PAINS.—Prof. T. Gaillard Thomas, M.D., in a "Lecture on the Management of Woman after Parturition," gives us the following timely hints: The less firmly a uterus contracts, the more severe are the after-pains, for firm contraction expels these clots, and thus the cause of the painful contraction disappears. For this reason, after first labors they do not occur. To cause firm uterine contraction, administer a full dose of ergot, just after or during the stage, in every case. Ergot never does harm, but fulfils an indication of great importance, and guards against the liability of hæmorrhage. Should this means fail, let the opiate be given before the obstetrician leaves the house. An excellent combination which he habitually employs for this purpose is the following: ℞. Chloroformi (squill) ʒ ijss., morphiæ sulph., gr. ijss., syrupi, ʒ ij.; M. A teaspoonful every hour till relieved.—*Rich. and Louisville Med. Jour.*

SWEET QUININE.—Dr. William Bullock's sweet quinine is enveloped in *glicion*, the sweet principle of liquorice. Four grains of this new preparation are equal to three grains of sulphate of quinia. It may be given in substance, by inserting it on the tongue, or syrup or water may be used. When acids are used in conjunction with the preparation, the bitter taste is quickly recognized. Sulphate of quinia costs ten per cent. more than sweet quinine.

SLEEP-PRODUCING AGENTS.—Prof. W. A. Hammond, M.D., in an article on "Wakefulness" in the *Detroit Review of Medicine and Pharmacy*, states that *phosphorus* is a remedy which has come into use recently in treating wakefulness. It is supposed to act by supplying a deficiency in the elements of the nervous tissue. It is not easily administered, owing to its chemical properties. In the form of phosphorated olive oil, in the proportion of four grains to the ounce, it can be given. It is preferable, however, to boil twelve grains of phosphorus in one ounce of almond oil, and filter. The oil absorbs four grains of phosphorus, so that each minim contains $\frac{1}{120}$ of a grain. Half an ounce of the oil is now mixed with an ounce of gum-arabic, and fifteen drops of some aromatic oil are added. Of this mixture the dose is fifteen drops, equal to five drops of the phosphorated oil, and containing $\frac{1}{24}$ of a grain of phosphorus.

He has used this remedy generally with success. Three doses are given before bedtime, and thus far have generally succeeded in producing the desired effect on the second day, if not on the first. The dose may be increased a drop a day, till twenty drops are taken, or signs of gastric irritation supervene.

Another remedy which he has used of late, especially in cases of nervous excitement where a sedative seemed indicated, is *sumbul*. This plant combined with bromide of potassium is given in epilepsy, with the result of increasing the effect of the latter. The dose of the fluid extract (Neergaard's) is from twenty drops to a drachm three times daily.

AN INTERESTING CASE OF STILLICIDIUM LACHRYMARUM.—Geo. H. Powers, M.D. (*California Med. Gazette*), alludes to an interesting case of *stillicidium lachrymarum*, and describes his mode of treatment as follows: This case presented the anomaly of entire absence of the punctum in the lower lid. He was unable to find any orifice with a fine probe, or even with the point of a pin. The upper punctum and canaliculus were patent, as was evident from the small amount of the tears accumulated on the lid, but for two or three years the patient had been subjected to great annoyance from the residuum of the lachrymal secretion which the upper punctum failed to carry off. As there was no sign of any pre-existing abscess of the lachrymal sac or duct, a fold of the tissues of the lower lid was taken up with the forceps, near the seat of the normal punctum, taking care to include the calibre of the canaliculus, and making a transverse cut with fine scissors through it; through this opening the probe easily entered the canaliculus, and, inserting a Bowman's director, the point of which was carried through to the further side of the sac, the whole length of the canaliculus was slit up with a triangular, sharp-pointed knife. The sac and nasal duct proved to be open and in a healthy condition, easily admitting the passage of the probe; this removed the difficulty, and now the tears flow through their natural channel.

The after-treatment was simply to keep open the canaliculus by the occasional passage of the probe, until the edges had become cicatrized and all danger of reunion was passed.

A CASE OF TETANUS IN A MULE CURED BY AMMONIA.—M. Allégre, Veterinary Surgeon at Calmar (*The Veterinarian*), forwards the following case of tetanus in a mule, cured by the administration of ammonia: The subject of this case was a mule of large size; the symptoms were general rigidity, the head, neck, and jaws moved with difficulty, the body and legs were in a state of complete immobility, and the animal was unable to take any nourishment. The treatment consisted of bleeding, frictions on the spine with camphorated liniment, setons on the chest, decoctions of poppies, opiates in enemas, &c., all of which had no effect.

Dr. A. was induced by a medical friend to try what he called a new remedy, viz., to make the animal swallow from 8 to 10 minims of volatile alkali in half a litre of water; this treatment had often succeeded in the human subject. The first day of this treatment there was no amelioration; on the second there was a slight improvement; on the third the muscles were slightly relaxed, and the animal was able to swallow: on the fourth it could masticate; from that day the improvement continued, and the animal completely recovered.

TO REMOVE THE BITTERNESS OF THE SULPHATE OF MAGNESIA, boil a little coffee in the solution of the sulphate; the flavor of the coffee marks that of the medicine. The flavor of a decoction of senna may be covered in the same way.—*Medical and Surgical Reporter.*

VERATRUM VIRIDE AS A THERAPEUTICAL AGENT.—M. Oulmont, of Paris (*Cinn. Medical Repertory*), knowing the elective action which veratrum viride exercises upon febrile phenomena, has administered it in cases of acute pneumonia, articular rheumatism, pleurisy and typhoid fever, and draws the subjoined conclusions from the results which were obtained: Veratrum viride acts directly upon the fever in lowering the pulse and the temperature. The pulse falls at the end of three or four hours, 20 to 50 pulsations; the temperature abates more slowly—it comes down ½ to 3 degrees only in the space of three or four days. The dose necessary in order to attain this result is ½ to 1½ grains a day. The action of the medicine becomes lasting only when it has been continued for two or three days. It is a rational, antiphlogistic remedy in pleurisy, articular acute rheumatism, and pneumonia, on account of its action upon fever. By its use the average duration of pneumonia is reduced to six and three-quarter days, and with a mortality less than with the other modes of treatment.

The favorable action of veratrum viride is less marked in articular rheumatism and in pleurisy.

In typhoid fever, the use of it is to be avoided. M. Oulmont employs this remedy in the state of a resinous

extract, of which he has small pills made containing each ½ of a grain of the extract.

Simple Mode of Performing Artificial Respiration in Asphyxiated Children.—Dr. C. Handfield Jones communicates to *The Practitioner* the following statement:—During my presence at a confinement (in my own house) the child was born with several turns of the cord round its neck, and after it was released from these it lay with a swollen, livid face, and no attempt at respiration. As soon as possible I laid it down on its back, and made pressure on its abdomen; then raised it upright on its seat; again laid it down and pressed the abdomen; again raised it upright, and so on. In the recumbent position the diaphragm was, of course, pushed upwards and expiration was imitated; in the sitting erect position the weight of the liver and abdominal viscera drew the muscles down, and inspiration was accomplished. The efficacy of the procedure was evinced in a very short time by the young gentleman making such vigorous use of his lungs that his cry was distinctly heard on the second floor below where he was.

He does not believe that Dr. Marshall Hall's or Dr. Sylvester's method could have answered better.

Treatment of Chronic Bronchitis.—E. Headlam Greenhow, M.D., Physician to Middlesex Hospital, London, in his recent work, "On Chronic Bronchitis, as connected with Gout, Emphysema, and Diseases of the Heart," recommends squill, ipecac, senega, or the tinctures of conium and of hyoscyamus, in the management of this affection. As a substitute for the balsams, which he has frequently found to produce nausea, he has used the tincture of larch with great advantage. Hydrochloric acid, cod-liver oil, and gentian were given where this simple treatment has been tried without benefit, or where debility was a prominent symptom!

Formula for Delirium Tremens.—Dr. Love, of New Jersey (*Am. Jour. Med. Sciences*), advocates, in cases of delirium tremens, the following prescription: ℞. chloroform, ℥ j.; glycerine, ℥ ss.; sulphate of morphia, gr. ii.; in doses of a teaspoonful every half hour until sleep is induced.

Cure of Carotid Aneurism by Digital Compression.—A case of aneurism of the primitive carotid, successfully treated by intermittent digital compression of the arterial trunk, has been reported by M. Rouge, of Lausanne, to the Society of Surgery of Paris. The patient was 68 years of age, and a male. The compression was effected laterally, the thumb being placed against the anterior edge of the sterno-mastoid, the next three fingers under the posterior edge, and the artery being thus seized and compressed between them. Thus the pressure on the pneumogastric nerve was avoided. Digital compression was continued for seventeen days, for an average of seven or eight hours each day.—*Brit. Med Journal.*

Coal-Oil in Chronic Duodenitis.—Dr. John Mulvany (*British Med. Journal*) extols coal-oil in the treatment of various affections, and in chronic duodenitis this remedy is very beneficial, and prescribes it as follows:—

℞.	Olei petrol.,	℥ ss.
	Chloroform,	ʒ ss.
	Tinctura Cardam. Co.,	ʒ j.
M.		

From fifteen to twenty drops are dropped on sugar, and administered three hours after each meal. His object in mixing the chloroform with it is to disguise the smell and taste. The tincture of cardamoms is simply intended to give it color, and still further disguise its taste. In giving it three hours after meals, it passes from the stomach with the end of the chyme, and comes directly into contact with the inflamed portion of the duodenum. When he first commenced giving it, he was not quite sure whether the beneficial effects were attributable wholly to the coal-oil, or in part to the chloroform, and reduced the quantity of chloroform in the next bottle from half a drachm to ten drops, and gave the same dose as before. The pain then wholly disappeared, and never returned.

Constipation in Old Age.—For occasional use in the treatment of constipation in old age, Dr. J. M. DaCosta (*Med. and Surg. Reporter*) recommends the following formula:

℞.	Podophyllin,	gr. 1/10
	Extract Belladonnæ,	gr. 1/10
	Capsici,	gr. ¼
	Pulveris Rhei,	gr. j.

For one pill. To be taken three times daily. Belladonna is a stimulant to the muscular fibres of the intestines. Podophyllin is useful in torpor of upper portion of the bowel, to increase the secretion of the liver.

Treatment of Pneumonia in Young Children.—Dr. J. Lewis Smith, of N. Y., gives, in pneumonia, to a child of five years, with a vigorous constitution, one drop of tincture of veratrum every three hours. In the second stage, antimony with morphia is recommended. A different management is advised in feeble children—carb. ammonia, senega, ipecac, &c. He uses in blistering the cantharidal collodion, in spots of the size of a ten cent piece, half a dozen or more.

A New Anatomical Feature in Human Blood Corpuscles.—J. W. Freer, M.D., Prof. of Physiology and Microscopic Anatomy, Rush Med. College (*The Chicago Med. Jour.*), announced, May 15, 1868, that human blood corpuscles were not, as heretofore supposed, simply bi-concave discs; but, on the contrary, there may be seen (by the use of Wale's illuminator) a nipple-like eminence in the centre of the concavity of each well-formed disc. This papillary eminence is about 1/10000 of an inch in diameter at its base; consequently, he arrays himself against the expressed opinion of physiologists and microscopic anatomists as set forth in standard works, *to wit*, that the human blood is non-nucleated. Continued investigation on this subject since the first article was published, has confirmed the announcement then made, and now he illustrates his discovery by two diagrams—one representing corpuscles of human blood, the other corpuscles of a frog—both of which illustrate these eminences. All of the research upon which his present convictions are based has been prosecuted by the use of *reflected light* instead of transmitted light, by which all examinations of blood corpuscles have been made heretofore. Corpuscles found in defibrinated blood are the best for observation.

Hydrocyanic Acid in Tetanus in a Horse.—A. Challinor, M.R.C.V.S., of Bolton, England (*The London Veterinarian*), relates the following interesting case of tetanus which occurred in a small bay mare pony, after a fracture of the nasal bones. When brought to him, all the symptoms of tetanus in the first stage were presented, and the jaws were partially closed. He at once administered aloes ℥ iv., and took three quarts of blood from her, stimulated the whole of the spinal column, and covered her with a sheepskin. On the following day, hydrocyanic acid was given twice a day, in half-drachm doses, and a blister was applied to the face.

The acid was administered by a small tube. On the third day she was a little better. The acid was continued for 14 days; she gradually improved, and at the date of the report was entirely well.

The cause of tetanus was attributed to the excessive heat of the weather.

THE PARALYSIS OF THE ARM FOLLOWING FRACTURE OF THE HUMERUS.—M. Ollier has operated for this difficulty several times to disengage the radial nerve from the bony callus. He cited the case of an infant of six years with such a paralysis; at the age of thirty-five years this individual died, and on post-mortem examination they found a general hypertrophy of the cervical and brachial plexus of the paralyzed side.—*Gaz. Hebdom.*

FLEXIBLE SULPHUR.—By adding a four-hundredth part of chlorine or iodine to sulphur it becomes very soft, so that it may be spread in thin leaves as flexible as leaves of wax.

CONTRA-INDICATIONS TO THE USE OF ANÆSTHETICS.—M. Gosselin (*Gazette des Hôp.*), in a recent clinical lecture, observed, with reference to the contra-indications to the use of anæsthetics, that one of these is the inveterate use of alcoholic drinks so common in the classes brought to the hospitals. In patients of this character, who have passed their fiftieth year, anæsthetics should either be abstained from or employed with the greatest circumspection, so that the anæsthesia may not be too deep or too prolonged. Another contra-indication is the state of stupor which immediately follows violent injuries. The question arises as to how soon after the cessation of such stupor are anæsthetics admissible. Following these great injuries, when all the known signs of such stupor have passed away, there may be a certain amount of latent stupor which may yet deceive the surgeon. This ill-determined matter, he thinks, should receive more attention from surgeons. He believes that the employment of anæsthetics is unadvisable in recent dislocations, and especially those of the shoulder, in consequence of the serious lesions of important trunks of nerves which may be present. With regard to old dislocations, the objection does not hold good, as anæsthetics are peculiarly indicated.

ALUM TAMPON.—An alum tampon about the size and shape of a turkey's egg, with a hole drilled through the centre for the passage of a string, by which it can be removed at any time, is recommended by Drs. McNutt and Stillman, of California, for arresting hæmorrhage in the early months of miscarriage.—*Cal. Med. Gazette.*

ON SYPHILITIC SORE THROAT.—Thomas Inman, M.D., of Liverpool (*The London Druggist*), states that in every case of syphilitic disease in the fauces and pharynx there is no application equal to a gargle containing one minim of the acid nitrate of mercury to an ounce of water. He has tested its value in several instances, and has come to the conclusion that there is not any preparation like to it.

It may be united with the use of laudanum, and its value is occasionally enhanced by moderate doses of iodide, or bromide of potassium, or chlorate of potash internally.

LIGATURE OF THE EXTERNAL ILIAC ARTERY.—J. F. Miner, M.D., of Buffalo, N. Y. (*Buffalo Med. and Surg. Journal*), recently ligated the external iliac artery for an aneurism of the femoral and iliac artery. The patient observed the pulsating tumor about four months before the operation. The tumor attained the size of the closed hand at the time of ligation, and was rapidly increasing in volume. The artery was ligated above the tumor, and the pulsation ceased entirely upon tying the ligature. At last accounts the patient had made satisfactory recovery. No unpleasant symptoms followed the operation; pulse at no time above 84 per minute. The circulation in the leg was not manifestly disturbed. The ligature separated from the vessel the 23d day, and 36 days after the operation the patient was well, except slight discharge of pus from the point where the ligature rested. Upon the right side, in the same place, is another aneurismal tumor. Dr. M. states that this is the first instance of ligature in Buffalo, or in that part of the State.

PREGNANCY AFTER OVARIOTOMY.—Dr. T. Spencer Wells, in a note to the *Lancet*, says: "Of more than twenty patients who had recovered after ovariotomy in my practice, and had subsequently become pregnant, I have not heard of one case in which there was any unusual suffering or difficulty during pregnancy or labor."

INFLUENCE OF THE WEATHER OVER THE RESULTS OF SURGICAL OPERATIONS, AND THE VALUE OF THE BAROMETER.—Dr. Addinell Hewson (*Penn. Hosp. Reports*), from an extended observation with reference to climatological physics, finds that in amputations all the months of the year give a mortality from pyæmia in direct ratio with evidence of dampness, while in a constant ratio with the dryness of the atmosphere, the mortality from shock occurs. The weather materially controls the results of operations; the deaths were not quite 11 per cent. when operations were done with the barometer mounting; with it stationary, over 20 per cent.; and over 28 per cent. with it falling.

ECZEMA UNGUIUM.—Erasmus Wilson, M.D. (*The Journal of Cutaneous Medicine*), in an extended article on *Eczema*, states, that this troublesome and vexatious form of disease takes possession of the walls of the nails, and disturbs their healthful formation. This is especially the case when the posterior wall, that which contributes to the production of the surface of the nail, is affected. The posterior wall may or may not be swollen in this case; it may or may not be fissured; but the surface of the nail is apt to be discolored, rough, and marked by numerous hollows, as though it were worm-eaten; and sometimes it is thickened and horny both in color and density.

DERMATALGIA.—H. S. Purdon, M.D., Phys. Belfast Dispensary for Diseases of the Skin (*Jour. Cutaneous Medicine*), believes that *dermatalgia*, or neuralgia of the skin, is often associated with hysteria, when it is observed most frequently affecting the left side of the body, as manifested by increased sensibility to touch. This complaint may also arise from exposure to draughts of cold air, rheumatism, or derangement of the uterine functions. Dermatalgia is generally limited to one spot; but in the hysterical variety, met with in females, the pain and increased sensibility to touch may be erratic, thus invading a large extent of surface.

In the variety of this affection attributed to rheumatism, it is usually limited, in patches, which may become erythematous. This variety, according to Damon, is due to a "morbid condition of the sensory apparatus of the skin, and which not only appears to be increased in dermatalgia, but there seems to be a veritable multiplication in the points endowed with tactile sensibility."—Spinal irritation is the cause, in the hysterical variety.

According to Marcé, severe and long-continued dermatalgia is one of the first symptoms of commencing myelitis. Dr. P. has observed this affection, neuralgia

of the skin, confined to the hands in a case of cerebro-spinal meningitis.

Bromide of potassium is beneficial in some cases; and oxide of zinc, in doses of two grains, twice daily, is occasionally beneficial, especially in the hysterical variety. To relieve the pain, and procure sleep at night, the solution of the bimeconate of morphia is an admirable preparation, and locally either belladonna, or aconite and opium liniment, may be used.

Treatment of Ichthyosis.—J. L. Milton, Surgeon at St. John's Hospital for Diseases of the Skin (*Jour. Cutaneous Medicine*), relies mainly upon the following local treatment in Ichthyosis: In a case of a child, 3 years of age, a warm bath was prepared, containing a scruple of carbonate of soda to three and a half gallons of hot water, and immediately after the bath the following ointment was rubbed over the whole of the affected surface, and allowed to remain in contact with it till the next bath was taken: ℞ Potassii Iodidi ʒ j. Olei Pedis Bubuli, Adipis purificati, āā ʒ ss; Glycerini ʒ j. M. Fiat Ung.

Tobacco a Cure for Pruritus of Pregnancy.—We learn from the *Tribune Médicale*, that a pregnant woman of nervous temperament, who experienced a severe itching all over the body, was advised by her husband to try the effect of smoking, in order to alleviate a neuralgia of the dental nerves; she smoked one cigar every evening until she was prematurely delivered, and the pain as well as the itching immediately disappeared.

She again became pregnant fourteen months afterwards, with pruritus followed by pyrosis. The smoking of one cigar again made her perfectly comfortable.

The Pulse of Parturient Women.—Of 400 women observed in the Hospital Cochin, by M. Hemey, 64 presented slowness of the pulse in different degrees, while an alteration in its rhythm was noticed in 94. Slowness of the pulse in parturient women ceases when the milk-fever begins, whereas its irregularity and inequality continue in most cases until the tenth day. This slowness of the pulse is attributed by MM. Marcy and Blot, to an increase of the arterial tension, caused by the sudden suppression of the uterine circulation. M. H. thinks that it is due to the shock produced upon the system by the parturient act and the consequent nervous depression, the intensity of which varies in different cases, as does the intensity of the milk-fever which caused it to cease. The influence of moral emotions in causing an increase in the frequency of the pulse is another argument in favor of this vital and organic explanation, rather than of the entirely mechanical one.—*Am. Jour. Obstetrics.*

Percentage of Water in the Brain.—Dr. S. Weisbach (*Med. Jahrbücher*) publishes the following results in regard to the amount of water in the brains of different ages and sexes, and in different diseases: In the adult the gray matter contains more than the white. At birth, the percentage of water is the largest, diminishes until the twentieth year, and afterwards increases. The male sex generally has a large percentage.

Acute diseases increase the amount of water; chronic diseases render it less. Meningitis and hydrocephalus exhibit the maximum; the minimum in tuberculosis, typhus and typhoid fevers.

The percentages of water and blood exhibit an inverse ratio in nearly every case; so do frequently the firmness of the brain and its amount of water.

Diphtheria.—Prof. W. Roser (*Am. Journal of Obstetrics*) presents the subjoined twelve points with reference to diphtherite of wounds. He follows the nomenclature of Bretonneau and Trousseau in the application of the terms "diphtheria" and "diphtherite." 1. There is not only a diphtheria of the skin, but also of wounds; patients with wounds, lying near such with pharyngeal diphtheria, may be inflicted with diphtheria of the wound. 2. Diphtheria of the wound and hospital gangrene are not identical; their similarity renders the differential diagnosis very difficult. The diphtheritic appearance of a wound can have a number of different causes. 3. Wound diphtheria may be followed by diphtheritic paralysis; this affection has not been observed after hospital gangrene. 4. There exists a hospital angina, angina nosocomialis. Hospital gangrene has such similarity to diphtheria, as to give rise to angina, which looks very much like diphtheritic angina; there are many anginas of different nature, although of diphtheritic appearance. 5. If "croup" is used as the term for the presence of pseudo-membranes in the larynx, there is a diphtheritic, pyæmic, scarlatinous, perhaps also a typhous, variolous, etc., croup. 6. There is a diphtheria of the gums and mucous membrane of the mouth, which ought not to be mistaken for simple epidemic stomatitis. 7. There is a diphtherite of the vesical mucous membrane, particularly when the urine is ammoniacal. We are not justified in attributing it to a specific infection (by hospital gangrene). 8. Whatever has been called diphtherite of the mucous membrane of the colon, may be the result of different specific affections. The diphtherite of the colon may be dysenteric, nosocomial, pyæmic, typhoid, or toxical. 9. Diphtherite of the vagina may either be genuine diphtheria of the organ, or hospital gangrene, or pyæmic, blennorrhœic, syphilitic, etc., inflammation. 10. The conjunctiva can be affected with genuine diphtheria; but there are, besides the diphtheritic contagion, a number of causes giving rise to similar fibrinous exudations and infiltrations. 11. It appears necessary to characterize a septic or cachectic diphtherite as special forms. 12. The cases of so-called secondary diphtherite are of different characters. Some must be taken for genuine diphtheria of a patient or convalescent; some are due to pyæmia; some may be due to septicohæmia and ammoniohæmia.

The Normal Temperature of Children.—Mr. James Finlayson, Manchester, Eng. (*The Glasgow Med. Journal*), gives the following result of a large number of examinations of children: 1. The daily range of temperature is greater in the healthy child than that recorded in the healthy adult, the range being as high as 2° or 3° F. instead of 1° F. as found by Davy, Giese, Frölich, Lichtafels. 2. There is invariably a fall of temperature in the evening, amounting to one, two, or three degrees. 3. The most striking fall occurs between 7 and 9 P.M., although it often begins about 5 P.M. and frequently continues on till after midnight. 4. The minimum temperature seems usually to be reached at or before 2 A.M. 5. The temperature usually begins to rise between 2 and 4 A.M. while the child is still sleeping soundly, and before food has been taken. 6. Fluctuations between 9 A.M. and 5 A.M. are usually trifling. 7. There seems to be no very definite, or at least obvious relationship between the frequency of the pulse and respirations and the amount of normal temperature. High evening temperatures are the rule, in cases of tubercular and enteric fever—often most difficult cases to make out in the young subject. A persistent evening rise of only one or two degrees, comes to be very significant of mischief, if in health; there ought really to be an evening fall to that extent.

Treatment of Burns of the Pharynx and Epiglottis.

—Bevean (*Archives Gén. de Méd.*) prescribes tracheotomy in cases of burns when the lungs become congested, and pneumonia sets in, and recommends mercury as an antidote to the congestion and pneumonia. Give an emetic if the stomach be loaded, and if the child be strong and plethoric, apply leeches to the top of the sternum. The mercury is to be given at once if the symptoms indicate that the epiglottis has been injured. The dose should be half a grain every half hour, to be diminished as the symptoms mend, or in contrary cases to be carried to salivation, or the characteristic stools.

In the mean time such nourishment may be given as the child can swallow.

Diagnosis in Disease of the Spine.—Charles F. Taylor, M.D. (*N. Y. Med. Journal*), in an article on "Differential Diagnosis of the Spine," believes Pott's disease to be usually inflammatory, only one case in fifty, or perhaps one in a hundred, being tuberculous in origin. He gives the following symptoms which attend the inception of the disease: One of the most persistent is what may be called gastralgia—pain in the abdomen when the disease is in the lower dorsal, or the lumbar region, and generally pain in front, on a line parallel with the disease in the vertebræ. The symptom of breathing *cut short*, when the disease is in the dorsal or lower cervical region, deserves mention. Another symptom of spinal disease is contraction of the psoas muscle, which may lead to suspicion of hip-joint disease. In this case the disease will generally be in the lumbar region, where the psoas lies in contact with the diseased vertebræ. Paralysis may appear very early in the first stage of Pott's disease, even before any deformity can be noticed. Sometimes there is a lordosis which may be mistaken for the lordosis accompanying certain forms of partial paralysis with muscular atrophy. When we see a child inclining the shoulders backward, the lumbar vertebræ curving to an unusual degree forward, diligent inquiries must be made at once, concerning the rational signs of spinal disease. In case of lordosis, the disease is either just below it, that is, at the lower lumbar region, or just above it, in the lower dorsal region.

Ovariocentesis Vaginalis.—E. Noeggerath, M.D. (*The Amer. Jour. of Obstetrics*), in an extensive paper on "Ovariocentesis Vaginalis," sums up the result of operations performed in 48 published cases, and arrives at the following conclusions: Of the 55 operations performed, 34 were successful; the disease returned in 3; result left undecided in 4; death occurred in 13 cases, or 25 5-11 per cent. Among the latter, 5 may be considered as the direct and immediate effect of the operation, viz.: 1 in consequence of hæmorrhage, 4 from peritonitis. Septicæmia and secondary peritonitis were the cause of death in 7 cases. One patient died from typhoid fever, one from an attack of peritonitis not caused by the operation itself. He states in conclusion, that with the improved method of operating and after-treatment, the death-rate may be expected to be reduced to a minimum; hæmorrhage to any considerable extent can be avoided, and septicæmia—the most prolific source of danger—so influenced by topical applications to the secreting surface of the opened cyst, that he is confident the operation will take the place of ovariotomy in all of those cases, of either simple or compound cysts, where the tumor can be attacked through the posterior vaginal *cul-de-sac*, either primarily or after artificial forward dislocation of the uterus.

Formula for Hardening Microscopic Specimens.—Müller's fluid for hardening specimens for microscopic examination, is as follows: Bichromate of potassa, gr. ij., sulphate of soda, gr. ij., and water, 3i.

The Infantile Brain.—The head of the new-born is very large in proportion to the rest of the body, its height being one-fourth the whole length of the body, and its weight one-fifth. The cranial cavity is one-fourth or one-third that of the adult, and measures 482 cubic centimetres. The occipital portion of this space amounts to 5, the parietal to 81.11, and the frontal to 13.89 per cent. The brain is soft, gelatinous, and of reddish-grey color. The convolutions are large, few, and flat. The anterior portion of the head is low and narrow; the anterior lobe of the large hemispheres weighing 60-67 grammes, or one-fifth that of the adult, which weighs as much as 300 grammes. The weight of the lateral lobe is 250 grammes; that is, one-fourth that of the adult, whose weight is 1,000. The cerebellum is very small, weighing but 25 grammes to 180–193 of the adult, or 6–7 per cent. of the whole brain. There is no distinct mark between the grey and white substances, therefore the irregular action of, and no just balance between the conducting wires and the telegraphing directing centre, and therefore a disposition to convulsions.—*Am. Jour. of Obstetrics.*

Direction of the Axis of the Uterus in the Adult Female.—M. Panas, Surgeon to the Hôpital Saint Louis (*L'Union Médicale*), draws the following conclusions with reference to the direction of the axis of the uterus in the adult female. Anteflexion constitutes in one-third of the cases the physiological state of the uterus. In nearly one-half of the cases, the straight uterus, considered until recently the only physiological one, occurs. Retroversions or retroflexions are the least frequent, and consequently more strictly pathological than anteflexions. Flexions coincide with early menstruation; while in the cases of straight uterus, tardy menstruation is noticed.

Generally, where there are uterine deviations, menstruation is more irregular than when the uterus is straight. The direction is not influenced by occupation.

In conclusion, he states that in more than half the cases, the flexions and inclinations of the uterus, which may be called physiological, are but slightly pronounced.

Properties of Ergot.—M. Ameville (*L'Union Médicale*) lately was called to see a 30 years' old primipara, who had been delivered by a midwife five hours previously. Just before his arrival, the placenta not having come away, the midwife had administered some ergot, but instead of producing expulsive pain, the uterine contractions confined themselves to the muscular fibres of the neck. The os would admit only with difficulty the end of the finger. An injection of tepid water was ordered to be made upon the neck of the uterus for eight or ten minutes. He returned in two hours, and found that the spasm had nearly yielded. The hand was introduced and the placenta detached. Direct intervention should have been resorted to at first.

Singular Case of Amenorrhœa.—The following remarkable case of amenorrhœa is published by M. Lowry in the *Wiener Med. Wochenschrift:* A woman apparently healthy, aged 21, married for eleven years, has passed through six confinements, in neither of which the ordinary lochial flow and loss of blood took place. This woman did not menstruate until after weaning her last child, when the catamenia appeared for the first time in her life, and reappeared after four weeks. The nausea and vomiting, constantly occurring in the first few weeks, were the only signs of conception.

THE MEDICAL RECORD.

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GEORGE F. SHRADY, M.D., EDITOR.

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New York, August 16, 1869.

THE ABUSE OF MEDICAL CHARITIES.

THERE is justly a great deal of complaint made by our profession in regard to the notoriously flagrant and constantly increasing abuse of medical charities. The question as to how the practice can be prevented is naturally invested with a great deal of interest, but practically speaking it is almost as far from being settled as it was a century ago. It has been proved to every one connected with our public institutions that there are no means generally by which the deserving can be separated from the undeserving. Dress certainly is no criterion, for the miserly millionaire can appear as dirty and shabbily dressed as the veriest beggar, while the poor shop-girl can appear very becomingly in the plainest calico. It has often been discovered that the one who was supposed to be the neediest pauper in our hospital ward has died leaving a considerable fortune; and the cleanly, respectable needlewoman, who pays her board while in the institution as a matter of principle, has absolutely nothing with which to begin life when convalescent.

On the very face of it, it would seem to be impossible to draw a just distinction between the two classes, as the spirit of charity would rather that ten undeserving should receive gratuitous services than that one needy one should be denied. Still, for the very sake of these latter, we are bound to look to it that none other obtain the benefit of our charitable services. We have never thought of complaining of the care that the really poor require, and have gloried in our opportunities for being good Samaritans; but we have a right to object to imposition, and to deny the rights of such as lie themselves through. But these are self-evident propositions, and are only worthy of reference as an introduction to the subject.

The younger members of the profession are chiefly interested in obtaining a radical remedy for this evil, as they, by virtue of their position, are the principal sufferers. It is upon the middling classes at least that they have to depend for patronage, and just in proportion as the current is drawn off in another direction must their legitimate income decrease. To the practitioner who is well established this loss of patronage is more to be desired than otherwise, and as a consequence it has become too general a practice among them to advise such to go to the hospital or dispensary rather than first think of a young and worthy practitioner, who would be very well contented with such fees as he might be able to obtain. Another class of medical gentlemen are, we are sorry to say, addicted to the habit of almost coaxing interesting cases to present themselves at their college cliniques, and oftentimes thoughtlessly offer a premium on dishonesty. We are aware that the majority of the interesting cases are sent to such places by the practitioners who have them in charge, and that after being shown they will be scrupulously delivered up; but how often does the pay patient of a competent young physician or surgeon voluntarily leave him to get the advice of a celebrated medical professor at the college clinique, and how often, if the case is interesting, is the patient almost urged to come again? This may be all very natural, but it is not the less wrong. It is a curious fact to mention in this connection, that by far the majority of clinic patients are not only well dressed, but seem to have money to spare upon jewelry.

It is evident that as the young physicians are the only ones who are injured, they must of themselves take all the pains to remedy the evil. A very celebrated London practitioner, of great hospital experience, has lately given some very wholesome advice upon this point. He recommends that the young men should seek their protection by informing the authorities of the public charities when any of their pay patients enter such institutions as paupers. If this could always be done there is no doubt that much imposition would be prevented. We are, however, afraid that this will not be done. Young physicians, above all others, are delicate on money matters, and experience has been that during the first years of practice they would rather be cheated of their dues than ask for them. They do not deny to themselves the right of receiving a fee, but they are too timid to go further. It is so much easier for them to give than to receive, that they are wont to apply to themselves the empty comfort which belongs to it. There is no doubt that there is plenty of demurring among themselves, but that does not reach the patient who owes the money. If then our younger brethren are afraid to reach out the hand for their fees, they would hardly bother themselves, for the sake of mere spite, to follow up a patient who was determined to cheat them in any event. This very timidity is one of the premiums on false charity, and is sure to recoil upon the giver.

With many of the public institutions it is the custom that no medical attendant shall use his position for the sake of making money. This is perfectly proper as a rule, but every patient who may wish to consult him has no right, if he is able to pay, to come to the hospital or dispensary and obtain his services for nothing.

Under such circumstances the attendant has not only a right to refuse to render such services, but can in a proper way inform the applicant that he will attend him as a private patient. He has just as much right to such a patient as if he were met by him in the street and the same questions were asked. There is no more danger of the physician cheating the institution and defeating its general designs, than there is of the institution cheating him by compelling him to serve without remuneration those who, if they are not willing, are certainly able to pay. The misunderstanding of the spirit of this very rule tends greatly to encourage the abuse of medical charities.

It is useless for us to expect to find a radical remedy for these abuses. But we must aim at it. We can certainly prevent much by a thoughtful course of action, if men of large business, who are above small fees, let us recollect the younger brethren in our neighborhood, to whom at all times a small fee would be a god-send; if teachers let us scrutinize our clinic patients, and if they are able to pay, no matter how interesting the case may be, be not afraid to send them away to some medical man in the vicinity,—let us guard the wards of our hospitals against the unworthy, let us in fact refuse our aid to all who are able to remunerate services, no matter under what circumstances we may be called upon to perform them. By so doing we confer a real benefit upon the poor, act with justice towards the would-be pauper, and cheer the dreary uphill way of the young, deserving, yet poor and struggling practitioner.

Reviews and Notices of Books.

A PRACTICAL TREATISE ON PERIMETRITIS AND PARAMETRITIS. By J. MATTHEWS DUNCAN. Published by William Wood & Co., New York, 1869.

DR. DUNCAN makes no pretension to completeness in this little treatise, but he certainly succeeds in throwing much light on a class of pelvic diseases concerning which very little definite information has been given by other writers. He confines himself to the consideration of inflammation and abscess in connection with uterine, tubal, and ovarian disease. Adopting the convenient nomenclature suggested by Virchow, he applies the term *perimetritis* to inflammation of the uterine peritoneum, and *parametritis* to inflammation of the cellular tissue in connection with the uterus; and at the same time he summarily rejects the terms "pelvic abscess" and "pelvic cellulitis" as vague, and therefore liable to mislead. After a careful review of the history of the subject, the author proceeds to point out some of the common errors in the diagnosis of pelvic abscess, such, for instance, as taking it for granted that an abscess or induration on the right or left side of the uterus must necessarily be situated in the broad ligament. In regard to the origin of pelvic abscess, Dr. Duncan holds opinions directly opposite to those of Dr. Bennett, and believes the primary disease to be inflammation of the uterus or ovaries, even in the unmarried woman. He thinks it impossible to separate iliac abscess from what is called peri-uterine abscess, because both owe their origin to the same cause, and the difference is only one of situation. But on this, as on all other disputed points, liberal quotations are given from eminent authorities on both sides of the question, and considering the high reputation of the author, he is singularly modest in the expression of his own views. Many typical cases are reported, and the results and teachings of many others admirably summed up. The chapter on the signs of perimetritis and parametritis is full and satisfactory; that on the symptoms is very brief, owing, the author remarks, to his belief that the symptoms have as yet been very imperfectly studied. He anticipates a time "when these vague and irregular symptoms will take beautiful order," but it is evident that much work remains yet to be done in this field. There is one point to which particular attention is directed by Dr. Duncan—that is the frequent absence of acute symptoms, as fever and pain, while active perimetritis exists, and irreparable mischief is in progress. He finds an analogy for this insidious character of the disease in other forms of local peritonitis, as in that of the investing membrane of the heart.

The treatment of these pelvic disorders is disposed of very briefly, with a few general observations on poulticing, bleeding, blistering, and the opening of abscesses. It is really lamentable, after the contemplation of diseases so serious and complicated, to find our remedial agents so few and of such doubtful efficacy. It is a disappointment, but it is one Dr. Duncan would certainly have avoided had it been in his power. His work is eminently suggestive throughout, and will be read with profit by all who are interested in diseases of women.

Reports of Societies.

AMERICAN OTOLOGICAL SOCIETY.

SECOND ANNUAL MEETING.

THE Society met at eleven o'clock A.M., July 20, at the Atlantic House, Newport, Rhode Island. In the absence of the President, Dr. E. Williams, of Cincinnati, Dr. J. H. Dix, of Boston, was called to the chair.

The following members were present:

Dr. J H. Dix, Boston; Dr. J. Orne Green, Boston; Dr. H. D. Noyes, New York; Dr. R. F. Weir, New York; Dr. W. F. Holcomb, New York; Dr. D. B. St. John Roosa, New York; Dr. C. E. Rider, Rochester; Dr. E. L. Holmes, Chicago; Dr. John Green, St. Louis;

A committee on election of new members was appointed by the chair, who reported the names of

Dr. H. Knapp, of New York; Dr. Lawton, of Syracuse; Dr. Clarence J. Blake, of Boston; Dr. H. G. Newton, Brooklyn; Dr. J. S. Prout, Brooklyn.

These gentlemen were elected, and Dr. Knapp being present, took his seat with the Society.

Drs. Weir, Roosa, and Green were appointed a Committee on the Order of Business, Nominations, a subject for discussion at the next meeting, &c.

After the report of this committee, as to order of business, Dr. D. B. St. John Roosa read a report on the progress of Otology for the past eighteen months. The thanks of the Society were given for this report, and it was referred to the Publishing Committee. A paper was then read by the Secretary, from Dr. W. W. Moreland, a member of the Society, entitled Deafness in Connection with Pregnancy and the Puerperal Condition.

The report on the progress of Otology and the paper just read were then discussed by various members.

Dr. Knapp then made some remarks on a case of ulceration of the membrana tympani caused by the use of the nasal douche, and also on diploacousis occurring in the same case.

Dr. J. Orne Green related a case and exhibited some specimens of aspergellus found in the external auditory canal and membrana tympani.

The remarks of Drs. Knapp and Green were referred to the Publishing Committee after having been discussed.

The Society then took a recess until 7½ P.M.

SECOND SESSION.

The Society met pursuant to adjournment. The report of the Committee on Nominations was presented and adopted.

President, H. D. Noyes, of New York.
Vice-President, E. L. Holmes, Chicago.
Secretary and Treasurer, C. E. Rider, Rochester.
Corresponding Secretary, H. L. Shaw, Boston.
Publication Committee: R. F. Weir, and C. E. Hackley, New York.
Committee on Progress of Otology: J. Orne Green, Boston.

Various subjects in otology, such as polypi, the effect of Toynbee's method of opening the Eustachian tube on the air in the cavity of the tympanum, were discussed.

Dr. Holcomb exhibited a cotton-holder, furuncle knife, and other aural instruments.

The committee reported simple chronic inflammation of the cavity of the tympanum as the subject for discussion at the next meeting.

The Society then adjourned, after the passage of some amendments to the constitution, to meet on the day previous to and at the place to be decided upon by the American Ophthalmological Society for next year.

AMERICAN OPHTHALMOLOGICAL SOCIETY.

SIXTH ANNUAL MEETING.

The Society met at the Atlantic House, Newport, Rhode Island, on Wednesday, July 21, at 10 o'clock A.M., and was called to order by the President, Dr. Henry W. Williams, of Boston.

The following named members were present at the opening session:

Drs. J. H. Dix, H. W. Williams, Hasket Derby, B. Joy Jeffries, Boston; C. R. Agnew, H. D. Noyes, W. F. Holcomb, E. G. Loring, Jr., D. B. St. John Roosa, New York; E. Dyer, Philadelphia; C. E. Rider, Rochester; E. L. Holmes, Chicago; John Green, St. Louis.

Dr. H. Knapp, of New York, was introduced to the Society and invited to take part in the discussions.

Dr. J. Orne Green, of Boston; Drs. Bozeman, Watson, and Weir, of New York, were also introduced and invited to be present at the meetings.

Drs. Agnew, Holmes, and Derby were appointed a Committee on Order of Business, etc.; Drs. Green, Jeffries, and Dyer, a Committee on Nominations.

The secretary, Dr. Noyes, announced the death of Dr. O. M. Pray, of Brooklyn, a member of the Society, in a few remarks, in which he paid a high tribute to the talents and character of Dr. Pray. He also presented a series of letters for the detection of Astigmatism, which were devised by Dr. Pray. Dr. Agnew followed in a few remarks eulogistic of Dr. Pray.

Dr. B. Joy Jeffries read a report of a case of synchisis which seemed to result from a pure inflammation of the vitreous humor; vision became normal.

Dr. Knapp made some remarks and gave a mathematical demonstration on the inaccuracies of the present method of testing the visual power, in disregarding the magnifying and minifying power of convex and concave glasses. He showed that with convex glasses, of $\frac{1}{10}$ and upward, the patient, in order to have normal vision, should read more than 20 of Snellen at 20 feet, and that with concave glasses a considerably less visual power than ability to read the same letters at the same distance would be equal to the normal standard. Drs. Noyes and Jeffries made remarks on the paper.

An executive session was here taken, after which Dr. Roosa read the report of a case of vascular tumor of the iris, supposed to be sarcomatous, and exhibited an illustration of the growth.

Drs. Dix and Rider made remarks on the case, and the latter reported a case of cyst of the iris.

Dr. Loring read the conclusions of a paper on strabismus. Among other points of this valuable paper it was shown that a patient with hypermetropia, operated on for convergent squint, sometimes needed a much stronger glass for binocular vision than the one measuring the degree of hypermetropia.

Dr. Green continued his remarks made last year on the use of leaden styles in lachrymal obstructions. Dr. Green now uses a hollow leaden tube. Drs. Agnew and Noyes discussed the paper.

Dr. Jeffries read a report of some tests upon his own vision by means of Green's Snellen's test-types.

The Society took a recess till 5 P.M.

AFTERNOON SESSION.

Dr. Agnew made some remarks on his operation for divergent strabismus, and exhibited photographs of cases.

Dr. Roosa reported a case operated on by Agnew's method.

Dr. Noyes reported cases performed by a modified method. The dangers of ulceration of the cornea from the operation were discussed by Drs. Noyes, Knapp, and Agnew.

Dr. Holmes made some remarks on a case of spontaneous dislocation of both lenses. The first dislocation was treated by a practitioner by *thrusting a needle into the lens*—panophthalmitis resulted. The second eye was treated by Dr. Holmes, who removed the lens by extraction. The patient did well, but subsequently his retina became detached, and vision was lost.

Dr. Williams also reported a case of spontaneous dislocation of the lens.

Dr. Roosa read a report of a case of monocular glaucoma resulting from binocular retinitis hemorrhagica.

Dr. Loring presented a modified form of an ophthalmoscope, by which the refraction can be accurately measured.

Dr. Noyes also presented an ophthalmoscopic mirror, for the same purpose, with a clip, in which the glasses of the ordinary trial case could be inserted.

Dr. Noyes also presented the various forms of eye specula that have been used, finally presenting one of his own design, the result of many experiments in this direction.

Dr. Agnew made some remarks and exhibited a drawing, showing his method of dressing eyes after capital operations. Dr. Agnew uses a patch of black silk fastened on the face by adhesive plaster, and does not employ a bandage.

Dr. Dyer showed an instrument for making pressure upon the eyes by means of water.

Adjourned till Thursday at 9 o'clock.

SECOND DAY.

The Society came to order. Drs. G. A. Hay, of Boston, and C. M. Allin, of New York, took their seats as members.

Drs. T. H. Pooley, Robert Watts, and H. Knapp, all of New York, were elected members of the Society.

Dr. Hay gave a demonstration showing the incorrectness of the statements made in Stellwag's, Wecker's, and Wells' text books as to the movements of muscæ volitantes (Stellwag on the Eye, p. 645), Sollberg, Wells, p. 319.

Dr. Jeffries read a case of amaurosis where the fundus oculi was normal and where strong sunlight was well borne on the eye, so that it would have been possible to photograph the fundus. Dr. Noyes made remarks on photography of the fundus oculi.

Dr. Knapp read the report of a case of cyst of the iris, with the operation for removal.

Dr. Dyer reported three additional cases of fracture of the lens from hanging.

Dr. Williams read a report of two interesting cases of sympathetic ophthalmia.

The Committee on Nominations reported the names of the present officers for re-election, viz., Dr. Williams, President; Dr. Agnew, Vice-President; Dr. H. D. Noyes, Secretary and Treasurer; Dr. Althof, Corresponding Secretary.

Dr. B. Joy Jeffries was nominated as the Committee on the Progress of Ophthalmology.

Drs. E. G. Loring and D. B. St. J. Roosa were nominated as the Committee on Publication.

The report of the Nominating Committee was accepted and adopted.

Newport, R. I., was fixed upon as the place of meeting for next year, and Thursday, July 23d, at 10 o'clock, as the time.

The Society then adjourned.

Correspondence.

MEDICAL MATTERS IN PARIS.

LETTERS ON ALBUMINURIA.

(FROM OUR OWN CORRESPONDENT.)

PARIS, May 6th, 1869.

It occasionally happens in the history of scientific research, that the original discoverers of new truths are able to immediately divine their consequences, and foresee the problems to which they will give rise. In this case, the widest subsequent ramifications of the subject may be traced back to their germ in the propositions of the original investigator, and the various doctrines which at different periods have been professed as exclusive seem all to have been foreboded by him, and to arise merely from some unduly special emphasis which has been laid upon one or another of his words.

The comprehensive moderation with which Dr. Bright announced his discovery of renal lesions as existing in that form of dropsy which is accompanied by albuminous urine,* places him unequivocally among those far-sighted observers who forestall the disputes of posterity by statements that embrace all sides of the questions at issue:

"Organic changes occasionally present themselves in the structure of the kidneys which, whether they are to be considered as the cause of the dropsical effusion, or as the consequence of some other disease, cannot be unimportant. I have often found the dropsy connected with the secretion of albuminous urine more or less coagulable by heat, and in these cases the liver has presented no alteration. On the other hand, in the dropsies dependent on liver disease, the kidneys have been healthy, and the urine non-coagulable. Whether the morbid structure is to be considered as having, in its incipient state given rise to an alteration in the secreting power, or whether the organic change be the consequence of long-continued morbid action, may admit of doubt.

"The more probable solution appears to be that the altered action of the kidney is the result of various hurtful causes influencing it through the medium of the stomach and skin, thus deranging the healthy balance of the circulation or producing an inflammatory state of the kidney itself; that when this continues long, the structure of the kidney becomes permanently changed, either in accordance with the morbid action, or by a deposit which is its consequence, but has no share in that arrangement of the vessels upon which the morbid action depends."

In the first paragraph quoted, Dr. Bright distinctly disengages a triad of phenomena, of which one had been ignored entirely, another misunderstood, and the third exclusively associated with a known organic lesion. This triad, renal lesion, albuminuria, and dropsy, alone deserve the name of Bright's disease, which cannot be lawfully represented by any one of the elements taken separately. In the second paragraph he raises the important debate between the local and general origin of this disease, and the question of priority of the functional derangement or structural alterations. A collection of twenty-two cases follows, whose history and anatomical pathology embrace nearly all the forms that have since been observed. Finally, a classification of these forms, which are all admitted as equally characteristic of the disease in question, and the suggestion that these variations may possibly represent the progressive stages of an affection essentially unique.

It is certain, therefore, that whoever regards Bright's disease exclusively as a local nephritic disorder, or exclusively connected with any one renal lesion, or as an incoherent assemblage of lesions independent of one another, or as a mere functional phenomenon, not only limits the subject, but limits the intention of the observer who first introduced the subject to the medical world.

The history of the doctrines concerning albuminuria may be resumed in five periods. The first includes all time previous to the eighteenth century, during which *dropsy* was recognized, studied, treated, and even painted,* and attributed to a variety of causes, especially liver disease, obstruction in the veins, lesion of the lymphatics. In the middle of the eighteenth century, Cotugno discovered the second element of Bright's triad, the albuminuria. The methodical reasoning by which he arrived at his discovery is worthy of notice. He had observed that the serous effusions in dropsical patients were coagulable by heat, and ascertained that the fluid secreted by the healthy serous membranes was not coagulable. He concluded therefore that some new substance had been added to the serous secretion by the fact of the disease. This was the first step. The second consisted in an observation entirely independent of the first, namely, that when the quantity of urine passed by the patients increased, the dropsical effusion diminished. He inferred that the kidneys had exerted

* Report of Medical Cases, vol. i. 1827.

* See the horrible picture of Gerard Dow at the Louvre—"La femme hydropique."

themselves to carry off the liquid from the serous cavities. To prove the identity between the surplus urine and the ascitic fluid, he bethought himself to search in the former for the coagulable substance which he had previously discovered in the latter. The same test produced the same result, the urine coagulated by heat, ergo it had received into its current the peccant humor of the disease, for which it constituted a valuable channel of derivation.*

Those who consider renal lesions as the sole and efficient cause of albuminous urine will hasten to criticize Cotugno's assumption that the albumen in the urine was derived from that in the peritoneal serum. On the other hand we shall find M. Gubler, in a recent essay,† citing the resorption of serous effusions as a frequent cause of albuminuria. At all events it is certain that Cotugno's ingenious reasoning led him the first (according to Rayer) to the discovery of albumen in the urine of dropsical patients.

Two-thirds of the triad were now constituted; the third link was added by Bright in his first autopsy at Guy's Hospital. The patient, John Peacock, had been suddenly attacked with dropsical swellings of the entire body, accompanied by fever and constant pain in the small of the back. The urine was sanguinolent and albuminous. Death occurred in seven weeks, and at the autopsy the liver was found to be healthy, but the surface of the kidneys completely granulated, rough, hard, and uneven. The cortical substance seemed quite disorganized, but the tubular portion was healthy.

This coincidence between dropsy, albuminuria, and renal cortical disease, was confirmed by several subsequent autopsies, and these three elements henceforth assumed definite and permanent relations with one another, in a newly organized disease. This is the third period, of which Cotugno's discovery constitutes the second in the history of anasarcal albuminuria.

The enthusiastic ardor with which anatomical researches were pursued in the fertile field laid open by Bright—the *éclat* of the school of Rayer and of the lessons of Martin Solon—the application of the microscope by Valentin ‡—all tended toc oncentrate attention upon the structural alterations of the kidney, as the sole and essential cause both of albuminuria and of the anasarca which frequently accompanies it. All the anatomists confirmed Bright's original statement—that a multiplicity of lesions were discoverable coinciding with albuminuria. The opinions differed, however, concerning the mutual relations of these lesions—the German school, after Frerichs, deciding that they represented progressive stages of a unique morbid process; the English, nearly unanimous in maintaining their independence, or in selecting one or another among the forms as alone characteristic of Bright's disease. This is the fourth period.

Finally arrives the fifth, which has by no means supplanted the fourth, but coincides with it, being rather a mode than a period of thought. Here the investigator refuses to arrest his researches at the kidneys, as the essential and sufficient agent of albuminuria, but seeks, in the organism at large, the common cause of their lesion, and of the passage of albumen in the urine. Valentin himself had suggested this extensive search, in the very passage in which he describes the first microscopical examination of a diseased kidney. "The kidneys are only the receptacle of the abnormal urine," he writes, "and the real disorder of secretion must be sought further removed, and in the blood."

* Cotunnius, De ischiade nervosa, pp. 24, 25 (quoted by Rayer).
† Dict. des Sciences Médicales, 1865. Art. Albuminurie, Gubler.
‡ Repertorium für Anatomie et Physiol. 1837.

A multitude of questions of the highest interest are resumed in these two groups of pathogenetic theories. To commence with the first group, we will first describe in simple succession the different alterations that have been observed in the structure of the kidney; afterwards the classifications that have been framed of these lesions, from the Report of Bright in 1827, to the recent thesis of Cornil,* in 1869; finally the inferences that may be drawn from purely anatomical investigations; clinical histories, and their combination with the facts of pathological anatomy, association and causes of symptoms coincident with albuminuria, prognosis, general pathogeny of this phenomenon, and the diseases in which it occurs, with their treatment, &c. These topics will form the subject of other letters.

The cases described by Bright may be resumed, as he in fact resumes them, into five forms, of which three are principal, and the other two barely mentioned. In the first case "a state of degeneracy exists, which seems to mark little more than a *simple debility*." It is not very clear what is meant by this "debility of the kidney," but the description given by Bright is readily recognizable, and perhaps covers several distinct forms that later are separated by the microscope. The kidney loses its firmness, and becomes pale, more or less mottled with yellow, externally and internally (in the cortical substance). In what appears to be a more advanced stage of the same lesion, are found on the surface, white portions, somewhat raised above the surface, and upon which ramify starlike vessels. Considerable spaces (the same?) are quite impermeable to injections. The tunic adheres closely. The cortex is a uniform yellow color, sprinkled with small, opaque, and indistinct yellow spots. The size of the kidneys is not altered.

This form, says Bright, may be observed in cachexias, even unaccompanied by dropsy, as in phthisis, diarrhœa, and ovarian tumor; urine only slightly coagulable. This seems to correspond to the third form described by Rayer.† The cortical substance is smooth and pretty equally colored throughout, being pale yellow, or very slightly rose-hued; sometimes the tint is so remarkably pale as to resemble an eel's skin. Here and there appear points of injected vessels, or brown and slate-colored spots, seeming to originate in some former sanguinolent effusion.

At an autopsy performed at La Pitié yesterday, remarkable on many accounts, occurred a fine example of this anæmic kidney. The patient had succumbed to repeated attacks of hæmatemesis, dependent (as was only clearly proved by the autopsy) upon simultaneous cirrhosis of the liver and spleen.‡ The kidneys were normal in size, flattened, and rather less firm than usual. The capsule was removed with remarkable facility, and the surface of the organ appeared pale, smooth and polished as marble—white, slightly tinged with rose lilac. Here and there appeared little scarlet stellated vessels, isolated, or united in small groups. On section, the same smoothness and uniformity of color were observed throughout the two substances. Their relations to each other seemed normal, unless it were that the cortical substances were slightly diminished in diameter.

But besides these unequivocally anæmic kidneys, are others whose pallor is explained by a commencement of fatty degeneration. Martin Solon § describes as the

* Cornil, Nephrites albumineuses—Thèse de concours pour l' agrégation, 1869.
† Traité des maladies des reins, 1840.
‡ The latter organ was 24 centimetres long, and 12 broad, descending only two finger-breadths below the false ribs, but pushing up the diaphragm as high as the 5th rib and touching the liver behind the stomach.
§ De l'Albuminurie, 1838.

initial stage of the "third degree," a condition where the kidneys are but slightly hypertrophied, with surface smooth and polished, and an extremely pale yellow hue, like that of the pancreas. Johnson* repeatedly describes the "smooth, mottled,—or waxy uniform yellowish white kidney," as in a state of fatty degeneration. Cornil† observes that in temporary albuminuria, the kidneys, to the naked eye, only differ from the normal appearance by a grayish color,‡ and a certain opacity of their cortical substance; but on microscopical examination with low magnifying power, 40—50 diameters, the convoluted tubes are found sombre and opaque to transmitted light, and filled with tumefied epithelial cells. These are infiltrated with proteic and fatty granulations, and the infiltration is the cause of the opacity and whitish appearance of the cortical tubes.

There is a third morbid process which may be indicated by these appearances described by Bright and Rayer. In the very beginning of the *amyloid degeneration* the kidneys often retain their normal size, the capsule is easily removed, the surface is extremely polished, and its coloration, as also that of the interior, pale, anæmic, slightly yellow in the cortical substance. All parts of the renal parenchyma affected with amyloid infiltration are impermeable to injections, which therefore dot the surface of the kidney with red spots and streaks, contrasting with the pale ground. Another important character is the occurrence of the amyloid affection in the course of exhausting cachexias, especially dependent upon phthisis and osseous suppuration. Only a small quantity of albumen ordinarily exists in the urine.§ It is remarkable that Bright signalizes all three of these circumstances in his Case III., whose autopsy furnishes him with the type of his first form of renal lesion.

Although in some cases the amyloid degeneration may be mistaken for anæmia, or even a healthy condition of the kidneys, it is generally distinguishable, even in the incipient stages, by the hardness and leathery consistence of the kidney, and by the hypertrophy of the cortical substance. Microscopical examination, as we shall presently see, easily completes the diagnosis. *En résumé*, however, in the *slightest* (we do not say the *initial*) form of change recognizable in the kidney by the naked eye, the organ is smooth, polished, pale, uniformly colored in subdued opaque tints that vary between grayish white and faint yellow, having lost its natural rosy hue, and something of its natural consistency, but having retained its volume and the normal relation of its two substances to one another. Three different morbid processes may be indicated by these appearances—anæmia, a commencement of cellular infiltration and fatty degeneration, the initial stage of the amyloid affection.

In the second form described by Bright, "the whole cortical substance of the kidney is converted into a granulated texture, with copious interstitial deposit of an opaque white substance. As the disease progresses, this deposit becomes more abundant, and innumerable specks are strewed through the kidney. Finally, granulations become visible externally in numerous slight uneven projections on the surface of the kidney, which is more or less enlarged. The whole cortical structure is often converted into a yellow substance like fat."

This corresponds to the fourth form of Rayer, who repeats Bright's description. He observes further, that the granulations vary in color from flaky white to yellow, are the size of a small pin's head, or drawn out into lines resembling flakes of curd, which seem to continue with the streaks in the cones. They are all veiled by an extremely delicate lamina which covers them like a varnish. The surface of the kidney over which they are strewed is perfectly smooth: the cortical substance, in which they also appear, is hypertrophied and projects between the cones, whose volume is normal. The hypertrophy of the kidney is therefore exclusively at the expense of its cortex.

Martin Solon describes these granulations (which he considers as a comparatively rare form of lesion) as "white, creamy, pultaceous, seeming to depend rather upon a sort of interstitial exhalation than a degeneration of tissue." He places them in his fourth form of albuminuria.

Frerichs* includes the granulations in his second or exudative stage of Bright's disease. According to him, the surface of the kidney is still polished between the granulations, and the capsule, though thickened, is easily removed. But Cornil, who seems to associate a certain degree of Bright's third form (hard solutions) with the granulations, declares that the surface is rough and unequal, and that in stripping the capsule it is difficult to avoid removing slices of cortical substance.

Johnson† establishes the granulations in a third form of lesion, which itself is only a slight modification of the second—the large, pale, anæmic, wax-like (or fatty) kidney without granulations. In addition to the granulations, numerous red spots dot the external and anterior surface.

Christian‡ admits the granulations as the second of two principal forms, inflammation and morbid degeneration. Jaccond follows Frerichs implicitly.

Andral, in 1823,§ seems to have anticipated Bright in a description of this form of the affection. At the autopsy of a young girl, who had succumbed to dropsy, the kidneys alone were found to be morbidly altered. "The cortical substance, and a part of the tubular, were constituted by *whitish granular tissue*, divided in little masses which were separated by naturally colored reddish parenchyma."

We may justly approximate to the completely granular kidneys the second form described by Rayer, in which the kidneys are enlarged, softened, the cortical substance entirely yellow, and the surface offering a remarkable mixture of hyperæmia and anæmia. The second and the advanced degree of the third form, established by Martin Solon, exactly correspond to these subdivisions signalized by Rayer and Johnson.

The close connection that exists between the large, smooth, yellow non-granular form, and the large yellow granulated variety of renal alteration, is rendered evident by microscopical examination.

Valentin,‖ in his first investigations, announced that the granulations were formed by masses of convoluted tubes distended by yellowish gray material, and hence more distinctly visible than usual. The straight canals were empty, or contained a small quantity of fluid. The Malpighian corpuscles were unaltered. Frerichs, after noticing the mixture of hyperæmia and anæmia indicated by the alternation of red and yellowish white on the surface of the kidney, also describes the convoluted tubes as distended by an exudated material, chiefly contained in the epithelial cells, and composed of fatty and proteic granulations. The cells lose their po-

* Med. Chir. Transactions, 1846—1859.
† Loc. cit.
‡ "Coloration grise,"—almost the same as our pale yellow, or yellowish white.
§ Jaccond, Clinique Médicale, 1867.

* Die Brightische Nierenkrankheiten und deren Behandlung, 1851.
† Loc. cit. Also Med. Times & Gazette, 1858.
‡ Monthly Journal. 1851.
§ Clinique Medicale.
‖ Loc. cit.

lyhedric form, become round, then irregular, and finally crumble away into a confused detritus, which blocks up the tubes and renders them opaque.

A finer exudation is formed in the Malpighian capsule, around the vascular tuft, as soon as the obstruction of the convoluted tubes begins to seriously interfere with the current of urine. This material, consisting of fibrine mixed with fat globules, covers the capillary glomerulus with thick layers, interposed between it and the capsule, and their pressure, counterbalancing that of the blood in the interior of the vessels, gradually arrests the transudation of water. The blood often flows back, therefore, from the corpuscle where its presence has become useless, and the capillaries are left empty.

Associated with the granular and fatty exudation is another of pure fibrine, which forms hyaline cylinders,* that assume the form, shape, and size of the convoluted tubes. When formed in tubes whose epithelial cells are falling from their walls, they are "granulated," because the desquamated epithelium becomes embedded in their substance. But the cylinders, exuded into tubes entirely stripped of epithelium, are large, pale, and waxy, and perfectly smooth.

Transverse section of the distended tubes often offers the appearance of little cysts, disseminated over the kidney. These cysts had been noticed by other observers, † but their nature had generally been misunderstood. Cornil affirms with Valentin that the granulations of Bright are formed by distended convoluted tubes. ‡ When the exudation consists of epithelial cells, simply desquamated, or filled with proteic (fibrinous) granulations, the granulations of Bright are grayish, opaque, or even demi-transparent. When the granulations of Bright contain fat, they become decidedly yellow in color. The uriniferous tubes and glomeruli in the neighborhood are normal or atrophied, and their collapse contributes to render the distended convolutions more prominent. Ecchymoses may occur near the circumference, and they result from rupture of the capillary vessels submitted to excessive pressure by the obstruction to the circulation caused by the exuded deposit. The red points, once supposed to be distended malpighian corpuscles, result from such a rupture into the extremity of a uriniferous tube. The glomeruli, as we have seen, are empty, or distended by fibrinous exudation—not blood.

The pressure of the granulations known as "Granulations of Bright" (and which must be carefully distinguished from others, more commonly met with, and which will be described further on) constitute, therefore, but a minor detail in the morbid alteration in question. The essential circumstance is the degeneration of the epithelium in the convoluted tubes. If this degeneration is generally diffused, so that the cortex is uniformly distended, the surface of the kidney, both external and on section, remains smooth and uniform. If the alteration is unequally distributed, certain bundles of tubes will be distended, at the same time that others are normal or collapsed, and will consequently become prominent above the level of their neighbors.

The hypertrophy of the kidney, exclusively at the expense of its cortical substance, its coloration, anæmia and hyperæmia, and its diminution of density, are all explained by this engorgement of the cortical tubes with epithelial cells, whose abnormal proliferation has been followed by troubled tumefaction, and finally by desquamation. But it will be noticed that under the general description of the minute anatomy of the "large, white kidney" have been united three very different conditions. In the first, epithelial cells are filled by proteic granulations. Second, the same are distended with fat globules. Third, the uriniferous tubes are stripped bare, and collapse when their contents have been swept away by the stream of urine which continues to pass through them more or less freely.

The relations of these different conditions to one another will be examined later. At present it is only necessary to signalize their existence, and to decompose the second as we have previously decomposed the first form of alteration described by Bright, into three distinct lesions.

Besides the fatty degeneration that accompanies and partially determines the "granulations of Bright," Cornil admits into the group of "*nephrites albumineuses*," the stearosis occasioned by poisoning with phosphor. Lebert * and Rannier † relate several cases of this lesion, whose dependence upon phosphorus was first insisted upon by Von Hauff in 1860,‡ though in 1859 Rokitansky had already related three cases of stearosis of the liver and kidneys, that he attributed to phosphoric poisoning.

In the cellular tissue which surrounds the kidneys (remarks Lebert) often exist little ecchymoses, also noticeable on the mucous membrane of the basin and calices. Capsula is smooth, easy to separate. On the surface of the kidney appears the mixture of hyperæmia and anæmia, already described by Rayer in the "large yellow kidneys," and dependent upon the obliteration of a part of the blood-vessels by the exudation, and the engorgement of another part in consequence of this obstruction. Volume of the kidney normal or increased. Fatty decoloration unequally distributed. Cortical substance yellow, and often notably atrophied. Surface smooth and shining, and of pasty consistency.

On microscopical examination the convoluted tubes are found to be engorged with fat granulations, which cease suddenly on the threshold of the glomeruli. These latter are congested, but otherwise perfectly healthy. According to Cornil, the fatty infiltration extends into the straight tubes, affecting especially the loop tubes of Henle, which become entirely black.

The fibrinous cylinders appear in the urine like a black, finely granulated, cylindric mass, filled solid, and thickly studded with fat granulations. This fatty degeneration is only observed if death be postponed beyond the third or fourth day. It is accompanied by similar lesions in the liver and heart, a circumstance unfavorable to the supposition that the renal stearosis is an essential affection of the secreting organ of the kidney. The rapid participation of the straight tubes, long intact in Bright's disease, and the scanty or doubtful amount of albumen that generally exists in the urine, also militate against the justness of Cornil's classification. But the question deserves more elaborate consideration.

We arrive at the third and last form described by Bright. "The kidney is rough and scabrous, lobulated, and rising in numerous small eminences. The feel is hard, like that of cartilage. The tubular portions *are drawn near the surface:* there seems to be contrac-

* According to Frerichs, these hyaline cylinders are formed by a simple process of inflammatory exudation, and identical with that which determines the passage of albumen in the urine. But Cornil considers them due to a colloid secretion from the cells, or a colloid transformation of the cells, comparable to that which takes place in the colloid degeneration of the cells of the thyroid body.

† Wilks, Guy's Hospital Reports, 1852.

‡ Wilkes (Loc. cit.) considers the granulations to be sometimes formed by the flaky deposit, scattered over the surface—the yellowish specks described by Bright and Martin Solon.

* Archives de Médecine, Sept. 1868.

† Archives de Médecine, 1868.

‡ Würtemberger Correspondenzblatt.

tion of every part of the organ, with less interstitial deposit than in the preceding variety."

It is this form which is often erroneously called "the granulated kidney." The true granulations of Bright are, as we have seen, extremely small, mere specks—soft, yellow, and seeming to be exterior to the parenchyma. The false granulations (which in reality better deserve the name) are larger, the size of a hemp seed, hard, evidently formed by the inequalities of the parenchyma itself, closely adherent to the capsule. The kidney is small, "contracted in every part," and has become famous as "the small, hard, contracted kidney," recognized and described by all authors. By the picturesque expression that "the tubular portions seem drawn near the surface" (appearance admirably represented in his plates) Bright indicates the extreme atrophy of the cortical substance, which he does not appear to recognize as the most special feature of the lesion.

Rayer repeats Bright's description in his sixth form. Martin Solon mentions it as "induration with atrophy," in a class consecrated to "accidental degenerations." Wilkes describes the "puckered uneven" surface of the kidney in this form, and the complete wasting of the cortical substance, by which the kidney shrinks to ½ or ¼ its normal size. As a rule, there is no pultaceous deposit, but a large addition of fibrous tissue. Cornil remarks the multiplicity of lesions which may be found in this atrophic form—transparent granulations, calcareous incrustations of the glomeruli, atheromatous alterations of the vessels, cysts formed by distension of the tubes, and great abundance of fibrous tissue, as in the interstitial nephritis that occurs independent of Bright's disease.

P. C. M.

NINE BONES IN THE CRANIUM.

To the Editor of the Medical Record.

Sir—In your issue of July 15, under the head of "Nine Bones in the Cranium," you notice "a peculiarity of the occipital bone" of a Negro, concerning which Dr. Burge inquires whether it be a mark of that race. To judge from the description, the osseous fragment is either a large single median Wormian bone, or else an interparietal: if the former, representing a condition too common in all races to require comment; if the latter, exemplifying, in man, a frequent formation of the skulls of lower mammals, as hares, &c. It seems much too small to represent an unanchylosed superoccipital, such as occurs normally in monotrematous quadrupeds, for instance; but if it be really this, is of unusual interest, as an ocular demonstration of the popular and time-honored fallacy of the aphorism, "eight bones in the cranium." Morphologically speaking, there are no less than thirty bones in the cranium: exclusive of the numerous bones "of the face," and of course without counting ossa triquetra or ossicula auditûs. As to their general homologies, these bones are—centrums and neural spines of three cranial vertebræ (6); four pairs of neurapophyses (8); and two pair of, respectively, parapophyses, pleurapophyses, appendicular elements, and sense capsules (16)=30. The special determinations are—in the occipital bone, 6, basioccipital, superoccipital, 2 paroccipitals, 2 exoccipitals; in the sphenoid, 8, basisphenoid, presphenoid, 2 alisphenoids, 2 orbitosphenoids, 2 pterygoids: in each temporal, 5, (10), squamosal, petrosal, mastoid, tympanic, stylohyal; in the ethmoid, 4, the perpendicular lamina representing 2 coalesced prefrontals, and the spongy masses, 2 ethmoturbinals: in the parietals, 1 only, permanently bifid; in the frontal, 1 = 30. These are demonstrable at some period of human life, and represent bones composing the cranium of all vertebrates from the lowest fish upward. They are necessarily, though very generally, determinable by simple reference to centres of ossification; thus the sphenoid, of eight bones, has twelve ossific points, and the parietals, a single bone, have two centres of development. To ignore these bones simply because with age they coössify, is as irrational as it would be to talk of an "os spheno-occipitale," when the basilar suture happens to become obliterated; and is only paralleled by the absurdity of dividing cranial bones into those "of the cranium" and "of the face." Standing in the full light of philosophic, as derived from comparative, anatomy, it seems almost time that our colleges should catch a ray of intelligence, and drop their musty empiricism for a rational method of teaching human anatomy.

Yours truly,

Elliott Coues,
Asst. Surg. U. S. A.

Fort Macon, N. C., July 28, 1869.

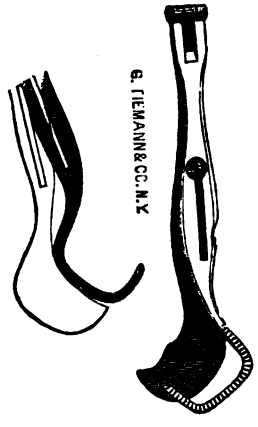
New Instruments.

MODIFICATION OF SNELLEN'S EYELID FORCEPS OR CLAMP,

By J. S. PROUT, M.D.,

Brooklyn, N. Y.

Snellen's modification of Desmarres' ring forceps or eyelid clamp presents a serious obstacle to one who wishes a complete set of eye instruments in small space and at small cost—two instruments are required, but a greater evil is the space needed for the projecting screw. The writer thought that one instrument could be devised to take the place of the pair, which would at the same time take up less space than one of the latter. The accompanying engraving represents (at about half size) the result attained.



The plate is not curved, but each surface is made slightly concave. The outer rim is thus of sufficient stiffness to give all the strength needed. The arm increases in thickness antero-posteriorly towards its free extremity, thus causing, when applied, an equal degree of pressure through its whole length. When the blades are reversed the opposition is perfect. This is not shown by the engraver, but can be readily imagined. A sufficient degree of springiness is obtained in the

shank near the hinge-joint. By running up the slide the blades are brought closely and firmly together.

The size of the instrument is the same in length and breadth as Snellen's—the thickness varies. The length of the projecting screw in Snellen's is ½ of an inch; in the substitute the slide, the thickest part, is only ⅛ of an inch through; at the end when closed the thickness is ¼ inch. The weight of the pair of Snellen's is about 10 dr. Troy, of the single substitute it is 5 dr. Troy, one half as much only.

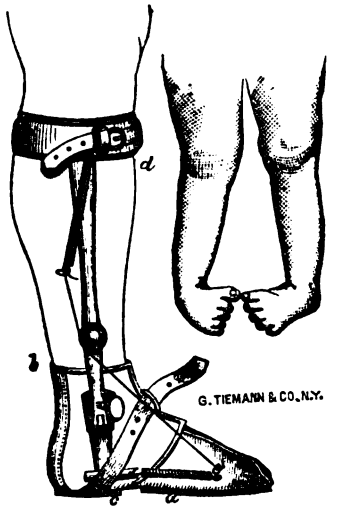
The instrument is manufactured by Geo. Tiemann & Co., N. Y.

BROOKLYN, N. Y., 1869.

IMPROVED CLUBFOOT APPARATUS FOR TALIPES VARUS.

THE following is a description of a very neat, effective, and comparatively cheap apparatus for talipes, devised by Messrs Geo. Tiemann & Co., instrument-makers in this city.

The sole of this strong leather shoe is of metal, with a joint near the heel, allowing lateral motion. A strong and durable spiral spring, as shown in the cut (*a*), draws the foot outward by a constant, elastic, and easy traction. This pressure is increased or decreased



at will, by fastening the spring in a series of sockets (*c*).

The single outside upright steel bar with joints at the ankle, is fastened round the limb below the knee-joint, and so constructed that the screw at the ankle-joint forces the foot flat upon the floor, which foot in almost all cases is turned under as indicated by the sketch. The spiral spring (*d*), being attached to a cat-gut cord (passing round a pulley at the centre of the bar and fastened near the toes upon the outside of the foot), elevates the toes and stretches the tendo Achillis, at the same time drawing the foot to its natural position.

The shoe is well padded, and as there is no metal in the heel-cap no excoriation is occasioned. The contraction of the leather above the heel prevents the shoe from slipping off (always so difficult to retain in fleshy infants). The straps round the instep depress any undue prominence of the arch of the foot, and within the shoe a broad and well padded tongue keeps the toes flat upon the sole of the shoe.

This apparatus resembles much the regular shoe, and shows no deformed appearance.

A very simple and light night shoe to keep the foot in the same position gained by above shoe during the day-time, is of much service.

For talipes valgus the same principle, but with reversed action, is applied.

Medical Items and News.

NEW YORK COUNTY MEDICAL SOCIETY.—At the next meeting, Sept. 6th, Prof. H. D. Noyes will remark upon "Defects of Form of Eyeball causing Defects of Sight," and will illustrate the same with the magic lantern. We have no doubt that the subject will be handled with ability and made interesting.

A PATHOLOGICAL BUILDING FOR DR. BROWN-SÉQUARD.—The Parisian Government intends building a *laboratoire* for this distinguished pathologist, near the School of Medicine in the garden of the *Hôpital des Cliniques*.

A NEW WORK ON JURISPRUDENCE.—Dr. John Ordronaux, our distinguished townsman and Professor of Medical Jurisprudence in the Law School of Columbia College, New York, has written a long-needed work on "The Jurisprudence of Medicine in its Relations to the Law of Contracts, Torts and Evidence." The first part, containing the *Fees and Remedies at Law of Physicians*, together with their liabilities for *malpractice*, will be particularly interesting to the medical profession.

CLAUDE BERNARD, THE PHYSIOLOGIST.—This celebrated physiologist has been called by Napoleon III. to the French Senate. He is now, besides Academician and Senator, Professor of General Physiology at the Museum, Professor of Experimental Medicine at the Collège de France, Annual President of the Académie des Sciences (l'Institut), Life President of the Société de Biologie, Member of the Academy of Medicine, Commander of the Legion of Honor. Twenty-five years since, Claude Bernard was an apothecary's assistant in a country town.

A REMUNERATIVE JOURNEY FOR AN OPHTHALMOLOGIST.—Dr. Magni, Professor of Ophthalmology in the University of Bologna, Italy, is to receive a fee of 100,000 francs, about $20,000 in gold, for an operation for cataract on a merchant residing in Lima, Peru. The expenses of the journey for himself and assistant are also paid by the Liman merchant.

A NEW AND EXTENDED WORK ON THE SURGICAL DISEASES OF CHILDREN:—A new French work, styled "Giraldès Leçons Cliniques sur les Maladies Chirurgicales des Enfants," is out. The book by Professor Giraldes, consists of five paper-bound volumes, containing in all 862 pages. The proofs for press were revised by the learned Professor, but the lectures were edited and written out by MM. Bourneville and Bourgeois, the *internes* of the author. On account of the large number of volumes, it will not fall into the hands of the majority of practitioners. Like Holmes' English work it contains many valuable suggestions and other practical hints with reference to surgical diseases of children.

ACCIDENT TO PROFESSOR BUNSEN, OF HEIDELBERG.—This eminent chemical philosopher has lately been severely wounded in the face and hands by a laboratory explosion. It will be remembered that Professor Bunsen almost lost an eye some time ago by a similar explosion, but completely recovered.

CASES OF INTERCRANIAL ANEURISM.—Dr. J. H. Hutchinson, Phila., has published in the last issue of the

Pennsylvania Hospital Reports a table of thirty-three cases of "Intercranial Aneurism," which affection he thinks has been overlooked. Dr. H. has found only four cases reported in American journals. In Europe a large number of cases have been published.

THE FIRST SUCCESSFUL CASE OF HIP-JOINT EXCISION IN PHILA.—Dr. John H. Ashhurst, Jr., Phila., relates in the *Pennsylvania Hospital Reports* the "first successful case of hip-joint excision which has ever occurred in Philadelphia." He adds a tabular view of 242 cases of hip-joint excisions, which is the most complete yet published.

OINTMENT FOR ITCH.—M. Hardy employs the following ointment for itch: sulph. sublimat., 2 parts; potass. subcarb. 1 part; adipis, 12 parts. After a bath before going to bed, the patient is subjected to a friction with this unguent, and to another on the next morning, without having taken any previous bath.

A CASE OF CHRONIC HYDROCEPHALUS.—There is a child in Dayton, Ohio, aged 17 mos., afflicted with chronic hydrocephalus, whose head measures 27 inches in the occipito-frontal circumference, and 19 inches from one meatus of the ear to the other, over the top of the head.

CASES OF URINARY CALCULI OPERATED ON IN THE PENNSYLVANIA HOSPITAL.—Dr. Thomas G. Horton (*Penn. Hosp. Reports*) publishes a statistical account of the cases of urinary calculi operated on in the Penn. Hospital from 1756 to 1868 inclusive. 124 cases are recorded, an average of a little over one case for each year, or one for every 663 of the whole number (82,212) of patients treated. Lithotomy was performed on 110, and on 14 lithotrity. There were 96 cases of lithotomy and 14 deaths, up to 1858; the gorget was used in nearly all, and no anæsthetic was given. Since 1858, 15 cases and 4 deaths have occurred; anæsthetics were administered in every case. From 1832 to 1851, 35 cases were cut, and one only, a child only 4 years of age, died. Fifteen of these were 5 years of age and under.

OPERATION OF OVARIOTOMY IN ITALY.—Professor Vanzetti, of Verona, lately performed the thirteenth operation of ovariotomy in Italy. The patient died from peritonitis at the end of three days, although the operator is a renowned and skilful surgeon.

INJECTION FOR PRESERVING THE CADAVER.—M. Devergie, at a late session of the Paris Academy of Medicine, read the results obtained in the School of Practical Anatomy by injecting bodies with a mixture of one part of carbolic acid and three parts of glycerine. Bodies thus injected were preserved several months without emitting any offensive odor.

A QUAINT PRESCRIPTION.—Dr. Upham (*Bost. Med. and Surg. Jour.*), at the last meeting of the Mass. Med. Society, read the subjoined old-fashioned prescription sent by a famous London physician to John Winthrop, Governor of the Colony of Massachusetts Bay, A. D. 1643. It is called a "remedie against fevers, poysons, small-pox, the plague, and such like:"

℞. In the month of March take Toades, as many as you will, alive; putt them into an earthern pott: cover it with a broad tyle; then overwhelm ye pott, so ye bottom may be uppermost; putt charcoales round about it, and in ye open arye, *not in an house*. Sett it on fire; when cold take out ye toades and in iron mortar pound them well and *tearce* them (whatever that may be)—a black powder will result. Of this you may give a dragme inwardly in any affection. For prevention ½ a dragme will suffice. Moderate the dose according to ye strength and constitution of ye partie.

COLORED PHYSICIANS APPLYING FOR ADMISSION INTO THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.—Doctor Alexander T. Augusta and Chas. B. Purvis, colored, were some months since licensed as practitioners by the Medical Society of the District of Columbia. Recently they sent in their names for membership in that respectable and conservative Medical Society. At the largest meeting the Society has held for years, the following votes were given: Dr. Augusta, rejected by 57 nays to 12 ayes, and Dr. Purvis, 55 nays to 11 yeas.

To favorably elect, a two-thirds vote of the members is requisite.

MEASUREMENT AND WEIGHTS.—A well proportioned man

Measuring	6	feet			should	weigh	175	pounds.
"	5	"	11	inches	"	"	170	"
"	5	"	10	"	"	"	165	"
"	5	"	9	"	"	"	160	"
"	5	"	8	"	"	"	155	"
"	5	"	7	"	"	"	150	"
"	5	"	6	"	"	"	145	"
"	5	"	5	"	"	"	140	"
"	5	"	4	"	"	"	135	"
"	5	"	3	"	"	"	130	"
"	5	"	2	"	"	"	125	"
"	5	"	1	"	"	"	120	"
"	5	"			"	"	115	"

This table has been estimated from the measurements and weights of 2,650 persons. The curious fact appears, that for every inch in height above five up to six feet, a healthy person ought to weigh an additional five pounds. In weighing, an allowance of one-seventeenth should be made for clothing; thus, a person weighing 170 pounds should be put down at 160, when stripped.

QUEER SYMPTOMS.—A patient suffering the consequences of the opium habit, recently described his symptoms in the following words: "I can compare the sufferings incident to the opium habit to nothing less than a compound *double distilled and highly concentrated extract of rheumatism, gout, neuralgia, and itch; with head-splitting, stomach-nauseating, intestine-twisting, limb-tearing agony.*"—*The Probe.*

COMPOSITION OF PURE WINES.—The European wines named below, present the following analyses to the Imperial pint.

	Water.	Alcohol.	Sugar.	Tartaric acid.
Port	16 oz.	4 oz.	480 gr.	80 gr.
Pale Sherry	16 "	4 "	80 "	170 "
Brown "	15½ "	4½ "	360 "	90 "
Burgundy	17½ "	2½ "		160 "
Claret	18 "	2 "	80 "	161 "
Hock	17⅞ "	2⅛ "		170 "
Moselle	18⅛ "	1⅞ "		140 "
Champagne	17 "	3 "	1330 "	90 "
Madeira	16 "	4 "	400 "	100 "

THE NUMBER OF CRIMINALS IN THE PRISONS OF THE UNITED STATES.—There are, in the whole United States, a body of criminals amounting to about 24,000; which is a little less than in the ratio of one in a thousand of the gross population. The annual direct loss to the public by their crimes is about $4,000,000, arson included. The police, prison, and other expenses are in the aggregate about $16,000,000 per annum.

SUCCESSFUL OVARIOTOMY IN A CHILD, TWELVE AND A HALF YEARS OF AGE.—At the meeting of the Société Impériale de Chirurgie, May 26, M. Jouon, of Nantes,

related an extraordinary case of ovarian tumor successfully operated on, which is reported in the *Union Médicale*. A little girl, twelve and a half years old, had suffered for eighteen months from a very large abdominal tumor, which had become of such a size as to have reduced the girl to an extreme state of exhaustion. The belly presented the appearance of a twin gestation at the extreme period; it was dense and fluctuating everywhere but at the left hypochondriac region, where the intestines were lodged. The age of the child, the absence of all signs of puberty, and the impossibility of isolating the liver, made the diagnosis of ovarian tumor doubtful. Recamier's method of opening the cyst by caustic was adopted, and a large quantity of very albuminous fluid made its escape; a sound was introduced, and a multilocular sac was found, proving the existence of ovarian cysts.

On the 15th March ovariotomy was performed. There were strong adhesions to the abdominal wall where the caustic had been applied; several punctures with a large trocar were unsuccessfully made into the sac; during the effort of extraction, two large cysts at the back of the tumor gave way; the entire mass was extracted, leaving a long pedicle from the left ligament; a clamp was applied, and the pedicle divided. The epiploon required two ligatures; the closing suture embraced a portion of peritoneum on each side; but coaptation was difficult, owing to the thickness of the membrane. Frequent vomiting occurred during the first thirty-six hours, but complete cure was finally accomplished by second intention in forty-six days. The tumor consisted of three large cysts, and the total weight, solid and liquid, equalled twenty-six pounds (French).

Diploma of the Bellevue Hospital Medical College.—The diploma of this flourishing Medical Institution is officially recognized by the Royal College of Surgeons, England.

A Prize Offered by the Infant Protection Society of Lyons.—The Infant Protection Society of Lyons, wishing to encourage mothers to nurse their children, will give at its meeting in 1870, a prize of 300 francs to the author of the best paper on the following subject: "Concerning the influence of nursing on the body and mind of the mother. Of accidents and sickness, which follow the mother's neglect of this duty."

The Society desires that the papers, treated in a scientific manner, shall be written with such clearness and simplicity, that they shall be understood by the outside world, as well as physicians.

The papers should be addressed, according to the Academical form, to Dr. Fonteret, Secretary General, Celestins St. No. 2, before the 1st of December, 1869.—*Gazette Hebdomadaire.*

Inebriates Treated at the Sanitarium, Media, Penn.—We learn from *The Probe*, that of 75 inebriates treated in this delightful home—a "*health station*" for persons of infirm body, or impaired will and judgment, who can find no suitable resort elsewhere—of these, 30 were single, and 45 married—24 may fairly attribute their habit to the influence of social custom, and in the rest it is traceable to constitutional causes.

The following surprising facts are worthy of note: 1st. That the cause of inebriety is traceable to the customs of social and convivial companies in about one-third the whole number; and that in the other two-thirds, the causes are found to exist in inherent constitutional tendencies—such tendencies as induce insanity in some men, melancholy in others, and a reckless disregard of obligations in others. 2d, Of the 30 cured, 22 are from the class of cases dependent upon constitutional causes, and 8 from the other class. 3d, Two-thirds had the advantage of family training, under Christian and temperance auspices, while only 23 have been deprived of such early influence. 4th, That the restraints of temperance organizations, with all the solemnity of secret orders and pledges, have been thrown around many without avail.

Consumption of Tobacco.—It is said that the annual consumption of the weed in ounces per head is nearly as follows:

In Great Britain	60 to 70	ounces.
France	80	"
Belgium	150 to 160	"
Holland	130	"
Denmark	120	"
Norway	100	"
Sweden	70	"
Russia	40	"
Austria	110	"
Sardinia	40	"
Tuscany	30 to 40	"
Papal States	30	"
Spain	70 to 80	"
Portugal	50 to 60	"
United States	120	"

Zollverein—the largest quantity per head.

Belladonna cigarettes are used in some sections, and produce an extremely besotted form of inebriety.

Opium Smoking.—The report for 1867, from the Bureau of Statistics of the United States Treasury Department, contains the surprising statement that, during the year, 50,551 pounds of opium were imported into this country, *prepared for smoking*. Most of it undoubtedly goes to satisfy the cravings of the Chinese.

Dermatitis Toxica from the Aniline Dye.—Poisoning the skin by the aniline dye contained in the scarlet-crimson colored socks, has, on several occasions, fallen under the medical experience of Dr. Erasmus Wilson. He believes that the toxic principle contained in the dye is soluble in the fluid of perspiration; that this state of solution favors its absorption by the skin; and that, being absorbed, its primary irritant action is on the tissues, and then on the nerves.

Examination of Pork.—Tiemann, of Breslau, (*Allg. Wiener Med. Ztg.*), uses a lens that magnifies only ten diameters, in the examination of muscle for trichinæ. He also selects a bit of tissue taken from the psoas major muscle or diaphragm. When a lens of a higher magnifying power than the above is used, the trichinæ may be overlooked.

Friction in Suspended Animation.—Thomas Inman, M.D. Liverpool (*The Med. Mirror*), believes that steady friction, rubbing, or shampooing, is of great use in suspended animation, and in other cases. It has, in addition to its general value, a special effect upon the muscular structures; and he avers, after closely observing the effects of both for many years, that the remedy of which he speaks is infinitely superior to the use of electricity or galvanism, or that which is now designated by the absurd epithet of "Faradization."

Three Cases of Arrest of Development of the Eye.—A writer in the *Boston Med. and Surg. Journal* publishes the following remarkable cases of arrest of development of the eye, occurring in the same family: In a family of nine children in one of our neighboring towns, the youngest, a baby of a week old, was born

with the left eye only about half developed, presenting an appearance that is often found in the eye which has been destroyed through the agency of a large ulcer of the cornea. It is about half the usual size, with a central opacity, the cornea being partly formed, and the iris can be distinguished, though smaller than normal. No pupil can be discovered. The other eye is perfectly formed. The second case is a boy of seven years of age, whose right eye is only partially formed, presenting a similar appearance to the first.

In the last case, a boy of 14, the right eye has wholly disappeared, there being nothing in the socket but the conjunctiva, which lines the cavity. The left eye presents nothing abnormal. The children are all healthy and robust. Nothing of a similar nature has been known to exist in any of the ancestors. The father and mother have perfectly formed eyes.

SUTURES—DR. JAMES ANDREW MILNE, Oswego, N. Y., after a careful examination of the whole subject, arrives at the following conclusions:—Silk sutures are preferable to any other: are more easily applied; less liable to cut out; hold the parts in firmer contact; and when prepared in the following manner, possess every advantage claimed for iron or silver wire, or pins, with none of the objections:

Take ordinary ligature silk, in the skein, put it in molten white wax, and allow it to remain until completely saturated.

On removal rub the wax from the surface to make it smooth and symmetrical, then wind for use.

LIEBIG ON TEA AND COFFEE.—In one of a series of articles on food, by Baron Liebig, published in the *Lancet*, we find the following observations on tea and coffee:

"In tea or coffee we obtain certain advantages for furthering the performance of mental or bodily functions, for warding off outward disturbing influences on the state of our health—in short, for the preservation of a normal equilibrium which is not exactly to be defined. If these drinks had not such effect we should soon tire of their enjoyment.

"If we consider that tea, coffee, and the gurn-nut all come from lands where meat is one of the rare enjoyments of the population, we are led to believe that the value of these stimulants consists in their being a substitute for meat-broth, and in partly replacing its effects. The fact that the English, Dutch, and North Americans, who are the greatest meat consumers, also drink the most tea, is not an argument against this opinion; for they use also the largest amount of extract of meat, and Great Britain alone takes one-third of all the quantity exported from South America.

"By roasting coffee too much the effects which it has, in common with tea, are essentially diminished. The caffein evaporates, and in the beans left behind, one has a quantity of scorched substances, which in their effect on the organization may be replaced by roasting other vegetable substances—such as chicory-roots, figs, &c.

"It deserves notice that a decoction of pekoe or souchong tea always contains a certain quantity of iron and manganese, peculiarly combined, and strong tea about as much as a weak chalybeate.

"The use of tea and its wide-spread enjoyment is founded on quite similar effects—that of maté in Paraguay also, and of the gurn-nut in the interior of Africa; and it cannot fail to excite our utmost astonishment when we learn that the same substance, caffein, to which we attribute the specific effects of coffee, is also to be found in the leaves of the tea-plant, in those of the ilex species—a decoction of which is drunk in Paraguay, as we take tea,—and finally, too, in the gurn-nut (sterculia acuminata).

"We must presuppose that if these stimulants did not satisfy some powerful want of our organization men would hardly take the trouble to seek them, and that instinct should, in so wonderful a manner, among a countless number of plants, choose just such as produce substances inducing the same effect, shows that one and the same gap exists in the nutrition of man in all countries and all zones, and in the same manner is sought to be filled up."

PHYSICAL DEGENERACY IN PARIS, FRANCE.—A marked degeneration has been observed to have taken place of late years in the *physique* of the inhabitants of Paris. The true Parisian is stunted in growth, and of muddy complexion; his children are undersized, emaciated, and pale. He chiefly dies of anæmia—at least, if we are to believe one of the Paris *savans*, Dr. Raoul le Roy, who has made this subject a special study for many years. According to M. le Roy, for instance, in spite of the solicitude manifested by government toward the hygienic welfare of all classes, in spite of the new plantations, the new boulevards and open squares, the amount of carbonic acid produced by the pulmonary emanations of two millions of human beings, each of whom daily exhales 219 grammes of oxide of carbon, is something frightful. To this noxious vapor must be added that produced by the gas manufactories, &c. Another cause for the impoverished blood is the enormous increase of the use of tobacco and alcohol. The consumption of the latter has exactly doubled since the year 1825. As to tobacco, in 1832 it produced a tax of 28,000,000f.; while in 1862 the consumption of tobacco brought in to the government a sum of 180,000,000f. In 1852, 200,000,000 cigars were smoked in Paris, whereas in 1867 the number increased to 761,625,000.

A NEW KIND OF MEERSCHAUM.—Chemistry has developed a new use for potatoes and other vegetables, illustrations of which were seen by visitors at the Paris International Exhibition. If potatoes are peeled, macerated for about 36 hours in water to which 8 per cent. of sulphuric acid has been added, well washed with water, dried in blotting paper, and then in hot sand for several days, on plates of chalk or plaster of Paris, which are changed daily, being compressed at the same time, an excellent imitation of meerschaum, answering well for the carver, or any purpose not requiring a high temperature, will be obtained. If water containing 3 per cent. of soda, instead of 8 per cent. of sulphuric acid, is used, greater hardness, whiteness, and elasticity will be produced. Turnips may be used instead of potatoes in the production of artificial horn. If carrots are substituted for potatoes, an excellent artificial coral will be presented.—*Drug. Circular.*

New Publications.

THE JURISPRUDENCE OF MEDICINE IN ITS RELATIONS TO THE LAW OF CONTRACTS, TORTS, AND EVIDENCE, with a Supplement on the Liabilities of Vendors of Drugs. By JOHN ORDRONAUX, LL.B., M.D., Professor of Medical Jurisprudence in the Law School of Columbia College, New York. Philadelphia: T. & J. W. JOHNSON & Co. 1869.

CIRCULAR No. 2, WAR DEPARTMENT, SURGEON-GENERAL'S OFFICE, WASHINGTON, D. C. Report on Excisions of the Head of the Femur for Gunshot Injury. By GEORGE A. OTIS, Assist. Surg. and Brevet Lieut.-Col. U. S. A.

Original Communications.

THE TREATMENT OF MALIGNANT TUMORS BY ELECTROLYSIS.

By W. NEFTEL, M.D.,

NEW YORK.

Although I am preparing for publication my researches on the continuous galvanic current, where remarkable illustrations of the electrolytic treatment will be given in extenso, I consider it my duty to give at once a preliminary account of the following case, which may contribute to save the lives of many sufferers deemed incurable.

Hon. Th. T. D——, a highly accomplished gentleman, 58 years old, consulted last year several celebrated surgeons in London and Paris (amongst others, Nélaton) with regard to a tumor in the left mammary region. They all advised him not to undergo any surgical operation, as they considered the tumor a malignant one, the removal of which would only hasten the fatal termination of the undoubtedly constitutional disease. The patient, nevertheless, insisted upon the extirpation of the tumor, and our great surgeon, Dr. Marion Sims, quite successfully performed the operation in Paris. Soon after the cicatrization of the wound, however, the axillary glands of the same (left) side began to enlarge, and in January last presented a tumor of the size of an egg, consisting of a conglomeration of enlarged and indurated glands. Dr. Sims again extirpated this second tumor, the microscopical appearance of which was that of a real cancer (carcinoma of the axillary glands). The specimen was presented to the New York Pathological Society and examined by distinguished histologists.* The wound this time healed very slowly, as it was accompanied by dangerous complications, an extensive erysipelas, high fever (107.8° Fahr.), rigors and delirium. Scarcely had the wound healed, when a new scirrhous tumor began to grow in the right mammary region, and very soon attained the size of an orange, or more. It now became evident that another surgical operation would be useless, for it could only call forth, as before, an immediate relapse, and perhaps in a more dangerous locality. As nothing remained to save the patient, who was perfectly aware of his condition, and whose constitution was broken down, I proposed the electrolytic treatment, expecting, as the best result, merely the local destruction and absorption of the tumor; for, in the present state of our knowledge, I could not have entertained any hope of producing by electrolysis the least favorable change in the constitutional disease.

On the 27th of April, and the 4th and 7th of May, in the presence of Drs. Metcalfe, Nott, and B. Howard, I performed the electrolysis by means of the large apparatus of Krüger and Hirschman, with elements of Siemens, subdividing, at the second and third operation, the cathode into three and four branches, connected with the needles by serres-fines. The latest improvements of the apparatus afforded the possibility of gradually increasing the quantity of the current, without interrupting the circuit, and of diminishing it in the same way, so that the circuit was broken only by the extraction of the last needle. Not a drop of blood escaped. The first operation lasted two minutes, using ten elements; the second five minutes, with twenty elements; and the third ten minutes, with thirty elements. After the operation the tumor increased considerably in size, but became softer and more elastic. No febrile or other local or constitutional symptoms followed. On the contrary, the patient who before was weak, anæmic, and cachectic, began to gain strength and flesh; the tumor at the same time diminishing slowly but constantly. A month after the first sitting the tumor was found a great deal softer and smaller; at the end of the second month it had almost disappeared, and a fortnight later no trace of it remained. The general condition of the patient is now in all respects excellent, and new deposits can nowhere be detected. In his last letter he writes to me as follows: "I am not able to discover any new deposits anywhere, nor would the tumor in the right breast be detected by any ordinary observer. I hope the old devil who took lodgings there and was ejected, took all his baggage with him." *

The above-related case presents the following points of interest:

1. The patient has been examined by a number of celebrated physicians in Europe and America, who have all considered him affected by a constitutional cancerous disease; and the extirpated tumors, being real cancers, have proved the correctness of the diagnosis.

2. The described case brings me to the conclusion that the electrolysis must be considered not only as a local agent, as thinks Althaus,† but as one capable of modifying, and even curing, the constitutional diathesis. I explain it in the following way: It has already been established, by experimental researches, that the electric current affects powerfully all protoplasmatic structures.‡ Hence it is possible and probable that the cells (which have to be considered as bearers of the contagion and the cause of the generalization of the disease) get their protoplasma altered in such a way by electrolysis, as to lose its specific infectious properties, and make it incompatible with the existence and propagation of the cancerous new formation.

3. Finally, this is the first authentic case of cure of a real cancer in a subject affected with constitutional diathesis. I think that if Althaus, to whom we are indebted for the improved electrolytic method, did not succeed in curing a single case of malignant tumor,§ it is owing only to the imperfection of the apparatus with which he works. I have had one like it imported from London, and have ascertained, by the feeble deflexion of the needle of my galvanometer, and by the weak muscular reaction it produces, that Althaus' apparatus generates a very small current-quantity. This explains also why he is obliged to have recourse to so numerous and prolonged sittings (half an hour), whilst, with the excellent apparatus I am in the habit of using, incomparably better results can be obtained in a much shorter period.

With regard to non-malignant tumors, I will give in my next paper an account of what I have attained by electrolytic treatment. Especially the soft tumors, nævi, etc., yield very rapidly to it. A large goitre of eighteen years' standing has completely disappeared in the course of two months. So far as I can judge from my experiments on animals (rabbits), the electrolytic treatment of varicose veins and aneurisms promises to be highly successful. Examining microscopically the thrombi, I

* Medical Record, March 1, 1869, No. 78, p. 17.

* The patient has since returned to the city, and been seen by some of the physicans above-named.

† *On the Electrolytic Treatment of Tumors.* London. 1867. p. 10.

‡ Vide Kühne: *Lehrbuch der physiologischen Chemie*, p. 338.—Golubew: *Wirkung electrischer Schläge auf die farblosen Formbestandtheile des Blutes.* Cent. f. med. Wiss. 1869. No. 5.

§ Medical Times and Gazette. 1868, p. 469.

could repeatedly convince myself, in opposition to the assertions of Tschaussoff,* that the organization of a thrombus really does take place, a fact which had been already experimentally demonstrated by the classical researches of Virchow,† as far back as 1846. Again, it is not difficult to follow up the gradual transformation of the colorless blood-corpuscles into connective tissue-corpuscles, which was likewise accepted by Virchow.

But the most surprising effect can be produced, by the electrolytic treatment, on organic strictures of the urethra. The only case I have had is a gentleman who is yet under my observation. He has been suffering for about ten years from organic strictures impermeable even for the thinnest bougies. He told me that, though he had been under the care of many distinguished surgeons, no one could ever succeed in introducing a catheter into his bladder. On the 20th July I introduced a French catheter, No. 3, up to the principal stricture, situated in the prostatic part of the urethra, the prostate itself being enormously enlarged, and by a very simple contrivance, directed the electrolytic action of the negative pole upon the stricture during two minutes. Immediately, to my great astonishment, the catheter passed within the bladder, and an immense quantity of turbid and decomposed urine was discharged. Since this the patient has been able to pass urine easier than he has ever done before. On the 24th July I repeated the operation with the same result, but using catheter No. 6 of the French scale; and I can now introduce Nos. 8 and 10 without resorting to electrolysis. So far as I can ascertain, the prostate itself does not seem to be enlarged any longer.

In spermatorrhœa this mode of treatment cannot be surpassed. I have had several cases of inveterate spermatorrhœa, which all yielded to a single or to repeated electrolytic treatment of the prostatic part of the urethra. I am sure that those who have once tried this method, will find it far superior to all the others, which are comparatively tedious and uncertain.

The first discoverer of the electrolytic treatment was Crussel,‡ of St. Petersburg, Russia. Already in 1839 he demonstrated experimentally the different effects produced by the different poles, and used electrolysis in the treatment of strictures, exudations, tumors, and ulcers. A number of others followed him, amongst whom one of the most successful is undoubtedly my friend Dr. Moritz Meyer,§ of Berlin. Dr. Althaus has quite recently improved the method and shown the great importance of the negative pole in the treatment of tumors. Certainly every observer will agree with him that electrolysis, besides annihilating the pain, acts in a threefold manner,‖ viz.: 1. Through mechanical disintegration of the tissues by the nascent hydrogen; 2. Through the dissolving action of the accumulated free alkali (potash, soda, and lime); 3. Through the local modification of nutrition (by means of the vasomotor nerves) of the parts brought under the immediate influence of the current. To these local effects I can now add, from my own experiments and observations, the constitutional effect of electrolysis, which latter especially makes this method invaluable in many hitherto incurable diseases. One of its great advantages is that it is never followed by inflammation, suppuration, sloughing, or other disturbances, and that the patient can continue his usual occupation and mode of life.

The electrolytic treatment is called to open a large field for surgery, and will be applied very soon to a variety of surgical diseases, to the advantage of the profession and the benefit of suffering humanity. The surgeon now, besides his biological knowledge and the use of his mechanical appliances, will acquire and appropriate to himself the knowledge of physics, electro-physiology, and the management of the complicated galvanic apparatus.

* Archiv für klin. Chirurgie. xi. 184.

† Gesammelte Abhandl., p. 823.

‡ Crussel: *Die electrolytische Heilmethode.*—Medic. Zeitung Russlands. 1847-48.

§ Moritz Meyer: *Die Electricität in ihrer Anwendung auf practische Medicin.* Aufl. 1868, p. 405, 407.

‖ *Op. cit.*, p. 441.

ETIOLOGY AND TREATMENT OF

DISEASES OF THE ORGANS OF THE FEMALE PELVIS.

By GEO. H. TAYLOR, M.D.

OF NEW YORK.

The investigation of this class of diseases from a standpoint differing from that usually assumed by the physician, has gradually led me to what I presume to be new, important, and eminently practical therapeutical results. At the suggestion of several medical friends, I therefore ask the attention of the profession to a brief statement of these conclusions, and to some of the facts and reasonings upon which they are founded.

Let me say at the start, that the positions and inferences that follow are not of a theoretical or speculative kind, but are the actual and every-day practice, attended with unquestionable success in a great variety of the different stages of the diseases referred to; that the most rigid scrutiny of all its details and results is invited, and that I desire freely to communicate what further practical details the interest or curiosity of any respectable physician may dictate, according to my ability.

1. Morbid conditions of the contents of the female pelvis—whether consisting of mal-positions of the uterus, such as flexions, inclinations in any direction, depressions, &c.—and the consequences of these; or of congestion of any portion of the generative apparatus and its consequences, direct and remote, as hypertrophy, ulceration, aberration of function, pain, &c.—all have demonstrable connexion with *one cause*, viz. the gravitation of the superincumbent viscera; this effect being feebly illustrated by that of a partial ligation of an extremity.

2. The pelvis of a healthy woman resembles not so much an inclosed space, as a tube whose longitudinal axis approximates more nearly the perpendicular than it does the horizontal position, and whose *lower* is its open or free extremity. It follows that whatever supporting power is exercised over its contents, comes chiefly from *above*. Attempts to provide sustentation in other directions *must* therefore be imperfect, and meet with some degree of failure.

3. This sustaining force consists mainly of the vital contractile power of the muscles of the chest and abdomen, conjointly with the motions of respiration. The action is pump-like; the effects are to return the blood of the venous circulation of both extremities and visceral parts, to afford a gliding motion to the surfaces of internal organs, so necessary to their nutrition and development, and to maintain their proper relative position.

The extent of the reciprocating motion of breathing is always diminished in the diseases under consideration. The *tendency* to disease is in the ratio of declining power and action of the above-named muscular parts. Recovery is secured simply by supplying the conditions for and increasing these motions; this is sufficient in the mass of cases, without other and ordinary (local) remedial aids.

4. These statements are rendered at least plausible by the observation which every physician makes of the general immunity of certain classes of women, as those who perform a variety of labor, or labor of certain kinds, from this class of affections; while those whose position in society, or whose avocations compel a neglect of due action and nutrition of the parts engaged in the above described motions, are always liable to, and most of them actually do suffer in some degree, some form of pelvic derangement.

But the principles here insisted on are susceptible of complete and unequivocal proof. Every physician can, fortunately, demonstrate the truth of these statements to his complete satisfaction. It is only necessary that he contrive to secure coincident expansion of the chest and contraction of the walls of the abdomen to an extreme degree in a prone position, and he thereby exerts a strong *lifting* effect upon the contents of the pelvis. I have had the good fortune to *see* the immediate return of the relapsed bowel which had long proved intractable—an effect which proved permanent.

Many similar instances have happened in my experiments.

The uterus and appendages are by similar operations caused to *ascend*, every mal-position is at once in some degree corrected, the surcharged vessels of the pelvis relieved, and a grateful sense of comfort is felt by the patient. Well-timed and judicious repetitions of such efforts, modified to suit the progressive changes in the case, with proper attention to the usual auxiliary and local details, secure in all curable cases a perfect and permanent recovery, the time required being usually very moderate.

5. The treatment by these physical and physiological processes does not necessarily demand any outlay whatever of the patient's strength. On the contrary, it is perfectly available for women who have been helpless and bed-ridden for years. While it is not practicable to give an adequate understanding of the processes required, by means of words alone, it may be desirable to explain somewhat here, how these helpless cases are managed.

We have seen above that the power of gravitation is especially connected with the *cause*, and is certainly regarded and treated by all physicians as a great hindrance to recovery. In this treatment it is actually made available, in fact *indispensable* as a restorative means. For example, if the patient is made to lie face downwards, *with abdomen unsupported*, it is plain that the abdominal contents will gravitate *from* the pelvis, dragging the contents of the latter with them. If now a very slow upward and forward kneading motion be applied to the thus depending abdomen, a still greater degree of upward traction is made upon the generative apparatus. The necessary position of the arms, extending outward and forward, spreading wide the diaphragm, and providing a maximum of space at the epigastric region, greatly favors the effect. Of course, such an operation could be applied only by a suitably devised apparatus. Different forms of such apparatus I have in daily use. In one, a pair of smooth rollers, excentric upon a revolving shaft, lift upwards and forwards at every turn the alternate sides of the abdomen presented to them from above. The degree of impingement is always under the immediate control of the patient, and is allowed to suit her feelings of comfort.

The use of these appliances results in not only a change upward in position of the pelvic contents, but the muscles become harder and fuller, and participate to an increased degree and effect in the respiratory motions, and become fully competent to maintain these new relations, and the whole region loses its abnormal sensitiveness. Even severe retroversion has been remedied by this and similar concomitant means.

Gravitation can be employed in several ways to similar ends, in some of which the patient requires no aid. For example, if lying on the back, with hands clasped over the head and legs flexed to their extreme, if the hips rise or be raised, similar effects ensue.

But if the patient have any muscular power this can be employed in a multitude of ways, in responding to the indications above set forth. Even if the strength be exceedingly feeble, due effects may be secured, and this without fatigue, if only cautious demands be made upon the will The body is richly endowed with muscles, every one of which can be taught to do its part in relieving as well as preventing this whole class of affections. For example, the spine may twist, or, in the absence of strength, be twisted upon its axis. This capability may be regarded as compensating in a good degree for the disadvantage of the upright position. In this act, the spine as well as thorax being unyielding, the contraction necessarily produced is in the *upward* direction, thus tending to prevent or to cure, as the case may be, the class of affections under discussion.

So, too, nearly all uses of the arms in the upward direction call such action in the walls of the chest and diaphragm as will increase the extent of the motion of respiration, and contribute something to the *lifting* function herein described. These motions, actions, operations, or "movements," as we specifically style them, admit of almost infinite variation, thus supplying adaptations to correspond to the condition of health and the needs of each particular case.

Many invalids, especially if they have not suffered long with the class of symptoms under discussion, are easily taught various self-applied operations that prove sufficient for their restoration.

It hence is clearly seen that a legitimate basis is had in Mechanico-Physiology for the radical cure of otherwise difficult and often intractable cases. While such treatment must render superfluous much of the local treatment at present in vogue, it has the further advantage of improving the *morale*, self-reliance, and the general strength together.

69 W. 38th Street, New York.

CLINICAL NOTES OF A CASE OF PHARYNGO-LARYNGEAL PARALYSIS,

SUCCESSFULLY TREATED BY LOCAL FARADIZATION.

By DR. J. SOLIS COHEN,

OF PHILADELPHIA.

Mr. E—— M——s, aged 23, of dark complexion, a resident of Jacksonville, Ill., applied to me on November 26th, 1868, to be treated for an impediment in swallowing. He bore a letter of introduction from my friend, Dr. Cutter, of Boston.

The previous history of this patient may be stated as follows: He is a native of Springfield, Ill., and was the youngest of four children, the rest of whom died in infancy. His mother died a few months after his birth, worn out by nursing his father, who died of consumption a few weeks later. His mother's family are all subject to sore throat. The first ten months of his life was under the care of a nurse who dosed him with Godfrey's cordial. At this time he was a puny thing, hardly any nutriment would remain on his stomach, and the nurse predicted that he would not live six months. A maternal aunt, who then took charge of him, attended to him very carefully as to dress, exer-

cise, and diet, and succeeded in strengthening him. He has always been dyspeptic, and very susceptible to take cold and suffer with sore throat. At eleven years of age both tonsils were excised, and from that period he increased rapidly in growth and strength, with marked diminution of the susceptibility to cold.

He was extremely backward in speaking, so much so that it was at first feared that he would never be able to articulate, but this difficulty gradually subsided after the age of five years. All his father's family experience some difficulty in speaking distinctly. He was brought up upon a farm, working in the open fields, until old enough to be sent to college. During this period and his college life he was not very regular as to diet and sleep, drinking large quantities of strong tea and coffee, and eating too rich food, and too much of it, and at improper hours, such as just before going to bed. The consequence was that his dyspepsia was almost constant; he had several attacks of diarrhœa, and his susceptibility to take cold returned. In September, 1865, at nineteen years of age, he weighed 145 lbs., one year later but 132 lbs. In the spring of 1867 he was better, and had relaxed his attention to diet, hours and exercise. He took an exceedingly bad cold, which prostrated him so that he could not hold up his head from weakness, and he kept up only by power of will. As he recovered from this attack he began to notice that he experienced some difficulty in swallowing, but he paid no attention to it. He thought it part of his dyspepsia, which continued to trouble him.

On the 15th of October of that year, while eating some dry biscuit, he suddenly felt a sharp pricking sensation in his throat, followed by a fit of choking. He was very much frightened, left the table, sat quiet awhile, then swallowed some brandy and felt better. A week later, without having experienced any great difficulty in the interim, he again had a choking sensation while swallowing, and was quite unwell after it. His throat was found to be inflamed and sensitive, and he was kept to his room for three weeks, under treatment by medicine and mouth-washes. He had a greasy sensation in his throat,* and expectorated mucus (saliva?) of which large quantities accumulated in his mouth. During this time he was fed on soups, blancmange, puddings, etc., until about November 10th, when, being compelled to resort to a boarding-house, he could not regulate the character of his diet, and managed to live on the ordinary fare, though with great difficulty in swallowing, which kept him a very long time at his meals, and prevented his enjoyment of them, the more provoking that he had a very strong morbid appetite at the time.

In January, 1868, he was again confined to the house from three to four weeks, having taken a cold, which laid him in bed for two or three days, with an inflamed throat, and increased difficulty in swallowing. From this time he took his meals in his own room, living upon liquids, almost exclusively, as far as he could, being able to chew meat, but unable to swallow it. This lasted until April. One day, partaking of some strained honey, of which he is particularly fond, he noticed it produced the same effect upon his throat as had occurred the October previous, and on reflection he remembered that on that day also he had eaten a large piece of honey at the house of a friend. The sensation produced by the honey was a sharp, stinging one, followed by great weakness and irritability of the throat. He also found that upon every subsequent trial the honey produced the same effect upon his organs of deglutition; so from that time forth he eschewed the tempting morsel. At this time he was attacked with measles; had them very hard indeed; confined to bed for nine days with severe coryza, lachrymation, bronchitis, sore throat, &c. He was confined to the house for four weeks after getting out of bed. When he went out he weighed but 125 lbs. His powers of deglutition were about the same. He could manage liquids and soft food, but could not swallow solids; but his general health was better, and he believes that the attack of measles was very beneficial to him. He was somewhat nervous from his condition, and studying hard for graduation from college, which occurred in June. For a few weeks he improved in general health, and could swallow better; but this benefit was only temporary, and by the middle of July he had run down in weight to 115 lbs., and was in a general state of nervous excitement. This continued until the middle of August, when he repaired to a water-cure establishment in New England, where he remained under treatment until the middle of November, a few days before he came to consult me. He gained nine pounds in weight during these three months, with great improvement to his general health, though his throat difficulty was not ameliorated. The treatment consisted of pack and electricity Mondays and Wednesdays; dripping sheet and dry cups Tuesdays and Thursdays; with occasional (2) electro-chemical baths, and Turkish baths on alternate Saturdays; besides a towel and sponge bath every morning early on rising. The diet was rather rigid. He took vegetable pills for loosening the bowels, a mouth-wash part of the time, and packed his throat every night. Exercise was taken regularly and rhythmically every day.

I questioned the patient as to whether there had been any difficulty in articulation in addition to the trouble in swallowing. He told me that from October, 1867, until July, 1868, there was more or less swelling and seeming paralysis of his tongue, which interfered both with swallowing and articulation. The swelling was principally at the base of the tongue; and upon beginning a conversation he would talk with difficulty for several minutes before the organ came under good control. This difficulty had subsided after he left college, and had not returned. He spoke to me rather slowly, and with some hesitation, as one does who is afraid of stammering; but he informed me that this was his natural manner, and his uncle, who accompanied him, confirmed the statement. Being questioned with regard to the dropping of food into the larynx, the patient replied that this was sure to occur if he ate rapidly, although with care he could usually prevent it, but not always; he would have, perhaps, one or two spasms from such an occurrence at each meal. He had no difficulty at that time in masticating the food, or in throwing the bolus back; it was in the last act of deglutition itself that the trouble lay. He complained also of sore throat, and some little hoarseness.

Upon making a laryngoscopic examination, I found the epiglottis very erect; there was abrasion of the mucous membrane of the posterior inferior part of both vocal cords, and also of the inner surfaces of the arytenoid cartilages. Otherwise the larynx and surrounding structures were healthy in appearance. Upon making the patient go through the motions of retching and straining, movements physiologically closing the larynx, I distinctly saw the vocal cords apply themselves closely to each other, and then the ventricular bands close upon them, but the epiglottis remained erect. Here, then, there was evidently paralysis of the epiglottis; the first two movements of closure of the glottis could be accomplished, but the final movement in which the

* I have had this greasy sensation of the throat described to me in two or three cases of glosso-laryngeal paralysis.

epiglottis falls down upon the laryngeal aperture was impossible. Here was a pathological proof of the truth of Czermak's demonstration of the phenomena of closure of the epiglottis during deglutition, and of which a description is given in my series of articles on Laryngoscopy, published in THE MEDICAL RECORD in 1866 and 7. I gave the patient a little milk to swallow, and immediately reapplied the laryngoscope. The milk had gotten upon the ventricular bands which had acted as sphincters, and were still whitened from contact of the liquid. Some experiments made with the milk and with a bit of cracker, chewed and swallowed, will be recorded in detail at a future period in an article on the phenomena of deglutition.

The tongue was thickly covered with a saburral coating, but its movements were perfect, and the sense of taste, as determined by sapid substances placed on the various nervous distributions to the organ, normal.

From the patient's description of his sensations in swallowing, and from my own observance of the manner of performing this function with both solids and fluids, I came to the conclusion that I had to deal with a local paralysis of the epiglottic, and of the constrictor muscles of the pharynx. The patient's general health was good, and there was nothing in his appearance or history to indicate a central lesion of the nervous system. The prognosis was then favorable. I determined to treat the case by local applications of the induced current to the paralyzed muscles. On account of the state of tongue and tendency to constipation, the following prescription was ordered, and the medicine taken through out the treatment, with admirable effect. ℞ acidi carbolici (concent.), gtt. x., Tr. gent. comp. f℥iv. ℥ft. mist. S. f℥ij. t. d. ante prand. No other internal treatment was instituted. The patient was ordered to continue his morning baths with the towel, to take exercise, and partake as far as he could of the ordinary fare at the private boarding-house (kept by Quakers, who live plainly), to which I recommended him. He was encouraged to take walks and drives in the open air, and seek cheerful society. I did not deem it worth while to institute any local treatment for the abrasions in the larynx, believing that they would heal under the stimulus of the electric current, which they ultimately did, though not as promptly as I had anticipated.

The patient remained under my care for three months. During the first month, the local faradizations were employed almost daily; during the next month about every other day; and after that two or three times a week. Kidder's machine was used, and the laryngeal electrodes of MacKenzie. The positive pole was held in contact with the skin of the neck; the negative poles applied over the affected muscles. The applications to the aryteno-epiglottic muscles were made with the aid of the laryngoscope, and the action of the current in drawing the epiglottis down was most manifest from the first, proving that the intrinsic muscles attached to the epiglottis have a good deal to do with the depression of that cartilage in deglutition. About half a dozen such applications of several seconds' duration were made at each sitting.

Then the constrictor muscles of the pharynx were excited to contraction by running the electrode along the mucous membrane covering them, well down to the œsophageal orifice on each side, alternately. These produced at first spasmodic attempts to swallow the sponge.

The patient was instructed to place his finger in front of his epiglottis, and push it down over the larynx several times a day.

Under this treatment the patient gradually became entirely relieved from his difficulty in swallowing, marked benefit being noticeable after the fourth or fifth application. At the end of a month he could swallow almost as well as ever, and had gained some six pounds in weight, but he still had occasional slips of food into the larynx. During the third month of treatment he swallowed as well as ever, and at the end of that period he went on his way rejoicing, his tongue cleaned, his dyspepsia controlled, his spirits buoyant, and weighing 135 lbs. On July 13th, 1869, Mr. M—— called on me. He was apparently in excellent health, and reported that he had no difficulty in swallowing since the discontinuance of the treatment. His larynx was healthy in appearance. The case may therefore be regarded as a success in electro-therapy.

Original Lectures.

ANEURISM OF THE SUBCLAVIAN

TREATED BY GALVANO-PUNCTURE.

REMARKS MADE BEFORE THE N. Y. PATHOLOGICAL SOCIETY,

BY HENRY B. SANDS, M.D.

NEW YORK.

I HERE exhibit a specimen of cervical aneurism, which has several features of interest connected with its cause, pathology, and treatment. It was removed from the body of a sailor, 19 years of age, who entered my service at the New York Hospital just three months ago, and gave the following history. He had fallen, eight weeks previously, while at sea, from the foretop of the vessel, and had struck upon his chin, thus causing a sudden and violent extension of the neck. Besides one or two lacerated wounds of the soft parts covering the inferior maxilla, no injury was discovered at the time of the accident. A few days afterwards, however, the patient began to suffer from slight pain and numbness in the arm and shoulder; and in the course of a fortnight, a pulsating tumor was noticed on the right side of the neck, close to the larynx, and at that time had acquired very formidable dimensions. It occupied most of the lateral triangle of the neck, and extended inwards beneath the sterno-mastoid muscle, as far as the median line. Its shape was pyramidal, the apex somewhat rounded off, reaching as high as the top of the larynx, while the base extended downwards behind the clavicle and sternum. The sternal end of the clavicle was partially dislocated forwards, and pulsated strongly, as did all those portions of the tumor which could be examined. The aneurismal murmur was also exceedingly well marked. The pupil of the right eye was contracted, probably from the pressure of the tumor upon the cervical portion of the great sympathetic. The tumor itself was very readily compressed, showing that its contents were fluid. The pulsation of the right carotid and brachial arteries was more feeble than that of the corresponding vessels of the opposite side, the difference, however, being only slight in the carotids. On the outer side of the tumor the finger could be passed behind the clavicle, and by pressing in the direction of the first rib, I was able to arrest the pulsations of the radial artery.

In regard to diagnosis, no doubt existed as to the character of the swelling, which was evidently aneurismal. It was not easy, however, to determine whether the aneurism involved the carotid or the subclavian, yet the great breadth of the tumor below, and the feeble pulsation of the right radial, led me to look upon

the subclavian as the vessel most probably affected. Furthermore, it seemed likely from the situation of the aneurism, that it sprang from the first division of the artery. Finally, the age of the patient, the traumatic origin of the swelling, and its rapid increase in size, induced me to believe that I had to deal with a false aneurism, the result of a partial rupture of the artery, the coats of which, except at the point of injury, were healthy, and free from atheromatous degeneration.

The question of treatment presented unusual difficulties. Perhaps the most rational course to pursue would be to lay open the aneurismal sac, and apply a ligature on either side of the wound in the injured vessel. This mode of treatment, although correct in principle, would have been impracticable in the present case, owing to the large size of the aneurism and the anatomical relations of the artery affected. It is probable that, if such an operation had been attempted, the patient would have died on the table. I felt compelled, also, on similar grounds, to reject the advice of one of my colleagues, who strongly recommended the application of a ligature to the innominate artery. Aside from the dangers which attend this operation under the most favorable circumstances, I was convinced that the innominata could not be reached in this instance without fatal interference with the aneurismal sac. The propriety of tying the carotid on the distal side of the aneurism was discussed, but I decided against the operation, as there seemed to be so slight a probability of this vessel being involved in the disease. After due reflection, I resolved to try compression on the distal side of the aneurism, and I accordingly obtained the assistance of a number of gentlemen, students of medicine, who kindly volunteered their services for the occasion. The treatment by digital compression was begun on March 23d, and continued for 26 hours, when so much pain was complained of, that further pressure was deemed inexpedient. Pressure was made on both the carotid and subclavian, but was most steadily and efficiently applied to the latter vessel. No material change was observed in the aneurism as the immediate effect of this treatment. The greatest circumference of the neck was the same as before the pressure was made, namely, 17 inches. The tumor remained soft and compressible, and the force of its pulsation was not diminished. It soon became apparent that the pressure over the subclavian had destroyed the vitality of the skin; and the ulcer which followed was attacked by spreading gangrene, which extended so far as to expose the sac, and also the anterior edge of the trapezius muscle. Under the application of carbolic acid and bromine alternately, the sloughing was arrested, and a deep ulcer was left, about 2 inches in diameter. The sore gradually contracted, but never entirely healed, up to the time of the patient's death. The inflammation which attended the sloughing process, seemed to have produced some consolidation of the sac and its contents, at its lower part, and on the 7th of May the pulsation disappeared in the right radial and ulnar arteries, and did not return. The upper and the inner portion of the aneurism, however, continued to pulsate as before, and the tumor was evidently increasing in size. Under these circumstances, I decided to resort to galvano-puncture, and obtained the assistance of my friend Dr. Guleke, who kindly loaned his apparatus for the operation, which he performed on May 15th. A gilded steel needle was introduced into the sac at its upper part, and was then connected with the positive electrode, the negative electrode being applied to the skin over the upper part of the sternum. The current was applied for a quarter of an hour, the patient having been previously put under the influence of sulphuric ether. No bad effects followed the operation, which was repeated in the same manner, by Dr. Guleke May 22d, and by myself on May 26th. Notwithstanding the tumor became firmer after these operations, it enlarged so rapidly that I yielded to the patient's request, and abstained from further surgical treatment. The suffering produced by the pressure of the growing aneurism on the œsophagus, trachea, and the neighbouring nerves was most intense, and could be only partially controlled by large doses of morphine, frequently repeated. On the 8th of June, the neck measured 22 inches in circumference. On the 9th the aneurism burst externally, and a copious hæmorrhage followed: the hæmorrhage recurred on June 12th, and proved fatal. The rupture took place through the ulcer above-mentioned.

I here present the tumor, which has been carefully dissected by Dr. Bell, the curator of the hospital museum. It will be observed that it occupies the whole of the right lateral triangle of the neck, and that it also passes inwards a little to the left of the median line. Above, it rises a little higher than the top of the larynx, while below it reaches behind the clavicle as far as the line of junction of the first rib with the sternum. Behind, it extends along the cervical vertebræ, which are slightly eroded. To the left of the aneurism are the internal jugular vein, the carotid artery, and pneumogastric nerve. These organs, as well as the larynx and trachea, are pushed over quite to the left of the median line.

The sac has been laid open in order to examine its interior. It contained a great number of coagula, which collectively exceeded three pounds in weight. These coagula were for the most part soft, and were evidently of recent date. It is instructive to notice, however, that where the needles have been inserted, the coagulum is firm and laminated, forming a layer nearly an inch in thickness, which is pretty closely adherent to the inner surface of the sac. It is impossible to avoid the conclusion that, in this case, galvano-puncture, though it failed to cure the disease, yet caused the deposit of stratified fibrine to an extent which, in a less formidable aneurism, might have brought about the desired result. A careful dissection has been made to expose the subclavian artery and its branches; these are found lying in the posterior and inferior wall of the sac, with which they were so closely incorporated, that it was found extremely difficult to trace them. The scalenus anticus muscle could not be found, having been either absorbed or pushed aside by the pressure to which it was subjected. The subclavian artery can be distinctly seen throughout the entire course. Its coats are healthy and entire, except at a point presently to be mentioned; and the artery is pervious until it passes over the first rib; here it is obliterated to the extent of an inch. This occlusion was doubtless caused by the inflammation which followed the employment of digital compression, and coincided with the disappearance of the radial pulse. The other large arteries, namely, the innominata and right carotid, were healthy and pervious throughout. Of the branches of the subclavian, all have been found except the thyroid axis; they are much reduced in size, however, and are impervious. Fine probes have been inserted into the vertebral and internal mammary, to denote their position, but the track occupied by each probe has been made by forcing the instrument through dense coagula of ancient date. In the upper wall of the first part of the subclavian artery, just an inch from the bifurcation of the innominata, is an oval aperture, measuring a quarter of an inch in its long, and an eighth of an inch in its short diameter, the long diameter corresponding

with the direction of the artery. Through this opening the artery communicates with the aneurismal sac, which is formed by condensed areolar tissue, infiltrated with fibrinous exudation. At first sight I thought this aperture was caused by a partial rupture of the subclavian artery, but my friend Dr. Sabine has called my attention to the circumstance that its situation and size correspond precisely with the origin of the thyroid axis. This fact, coupled with the apparent absence of the thyroid axis, renders it probable that this vessel was either torn across at the junction of the subclavian, or that it was partially separated at the time of the accident, the separation afterwards becoming complete by the process of ulceration. Moreover, when the opening is critically examined, it is seen to be somewhat funnel-shaped, as if it had been produced by severing the thyroid axis immediately above its origin from the parent trunk. The point might be demonstrated if we could discover the distal portion of the thyroid; but, though this doubtless exists, it is so concealed by the infiltrated tissues in which it is imbedded, that it has escaped detection. A few other circumstances relating to this interesting case deserve a passing notice. By the closure of the subclavian and its branches, all the conditions were present for a cure by the distal or Brasdorean method; yet the aneurism progressed and proved fatal. This may be explained by the fact that the aneurism was a false one, and that it was situated so near to the heart. Although the blood could not pass in a current through the sac, it was propelled into the sac with sufficient force to prevent the rest necessary for its consolidation. The walls of the sac, also, being composed merely of connective tissue, yielded more readily than if they had been reinforced by the presence of one or more of the arterial coats. An examination of the anatomical relations of the sac shows clearly how futile would have been the attempt to ligate the innominate artery. This vessel lies directly behind the lower part of the aneurismal sac, which must necessarily have been cut through before the artery could have been reached. Neither would this operation have been feasible by the removal of the sternal end of the clavicle; for this bone was eroded, and at its junction with the sternum formed a part of the anterior wall of the aneurism. Finally, it is barely possible, that, if the method, which was successful in a case of carotid aneurism that occurred in the practice of Mr. Syme, had been adopted in the present instance, the patient's life might have been saved. It will be remembered that this surgeon treated a case of traumatic carotid aneurism by first making an opening in the sac of sufficient size to admit the forefinger; applying the latter over the aperture in the wounded artery, he laid the sac freely open, turned out its contents, and dissected out the artery so as to apply a ligature above and below the opening in the vessel. Of course this would have been far more difficult to do in a large subclavian aneurism than in one of moderate size, involving the carotid; and I think the inspection of the parts as here exhibited will convince everyone, that in the attempt to surround the first part of the subclavian with a ligature, the pleura would have been inevitably perforated.

WHEN TO TREPHINE.—M. Chassaignac (*L'Union Médicale*) advocates *trephining* in only two conditions: 1st, When there is a lesion situated in a definite spot, the seat of which lesion is fully ascertained, and the effects of which may be suppressed by trephining; 2d, When there are dilated pupils, with symptoms of general compression, which symptoms are tending infallibly to produce death.

Progress of Medical Science.

SENSIBLE REMARKS ON THE PROGRESS OF GYNECOLOGY.—J. Matthews Duncan, Edinburgh, in his work on "Perimetritis and Parametritis," truthfully remarks with reference to the diseases of women: "Foolish and unscrupulous men have a peculiar tendency, easily accounted for, to cultivate the diseases of the sexual organs. And the history of the progress of gynecology in our day would, if truly given, cast as much disgrace on some individuals as honor upon others. Fortunately, its worst side will probably never be thoroughly exposed; for the fittest of fates—oblivion—awaits much that is now vaunted; the discovery and diligent treatment of diseases which do not exist; the use of treatments the danger of which is greater than that of the diseases; the recommendation of remedies and operations regarding which little more is known than their names; the facile juggling with remedies of which it is the one sufficient recommendation to have a new name; the systematic concealment of disasters resulting from such treatments. Great progress is certainly being made; but 'blinding dust' is the chief result of many of its most notorious if not famous promoters."

DR. BRINSMADE'S DIAPHORETIC POWDER.—The late Dr. Brinsmade, of Troy, N. Y., was in the habit of administering the following combination in the place of Dover's Powder:—

℞. Morphiæ Sulph. gr. vj.
Camphor pwd. }
Cretæ prep. } āā 3 ij
Saccharum album }

Misce. Ft. pulvis No. 36.

Each powder contains one-sixth of a grain of morphia, and should be dissolved in a teaspoonful of cold water when administered. The above powder is the same as the celebrated "*Tully's Powder*," which is extensively used in Eastern New York, Massachusetts, and Vermont, with the exception of the white sugar, which was substituted for the powder of the root of glycyrrhiza glabra. The addition of sugar renders this powder readily miscible in water, and the most convenient form for giving small doses of morphia, especially to children and persons of delicate stomachs.—*Med. and Surg. Reporter.*

TREATMENT OF NEURALGIA.—M. Bertrand, Paris (*Med. and Surg Reporter*), recommends the subjoined ointment in the treatment of neuralgia:—

℞. Veratrine, gr v.
Morphiæ sulphatis gr. iij
Adipis, ʒ j

M. The painful parts to be rubbed with this ointment frequently when the paroxysms of pain are at their height, and as often as they require. In the majority of cases, two or three frictions suffice. M. Bertrand has published a number of cases of facial neuralgia and of neuralgic headache, in which quinine and blisters had been tried without effect, and which yielded promptly to this application.

OPIUM AS A PARTURIENT AGENT UPON THE UTERUS.—P. C. Barker, M.D., Morristown, N. J. (*N. Y. Med. Journal*), has discovered that opium is a valuable parturient agent in cases of this character: Before the expulsive contractions commence which terminate the process, the circular fibres of the uterus should relax, and the "os" become widely dilated; but irregular contractions of the different sets of fibres, or contractions of the circular alone (constituting false pains), or rigidity of the "os uteri," due to tonic contraction of

its circular fibres, often prevent this physiological dilatation, and prove the source of great distress to the patient and annoyance to the obstetrician.

Further observations, in a large number of cases of varied character, have convinced him that opium, instead of having a general anodyne effect upon the uterus, stimulates the fibres of the body of the uterus (longitudinal and oblique), and relaxes the circular fibres of the os. He is fully persuaded that *opium never did or can arrest a physiological* labor.

In *abortions* he considers it an invaluable remedy, facilitating dilatation, diminishing hæmorrhage, promoting the expulsion of the placenta, and lessening suffering.

Ergot, on the other hand, by causing contraction of the circular fibres, retains the placenta, and therefore should rarely be given (in abortion) until after the fœtus and secundines have been expelled. Opium was used in three cases of *placenta prævia*, one at the sixth month, and two at term, saving the mother in each instance. Two important indications are met in *placenta prævia*, when this drug is given: 1st. It facilitates dilatation, thus shortening the period of greatest danger. 2nd. It promotes the expulsive power of the uterus. It also serves to lessen hæmorrhage by a special hæmostatic action.

With respect to the mode of administration, he has generally employed solid opium pills, grs. 1 to 3, or sulphate of morphia, gr. $\frac{1}{6}$ to $\frac{1}{4}$ (the latter given dry on the tongue if nausea is present), at term.

In abortion, if seen early, he gives enemas of corresponding strength, usually employing from ʒ ss to ℥ j doses of opii tinct. in a tablespoonful of warm water, to be repeated after three hours if the pains continue, or later, if they return after being quieted.

The theory set forth in this paper explains phenomena in the action of opium upon the gravid uterus which have hitherto, from the time of Denman to the present, been regarded as exceptional.

His object in calling the attention of the profession to these peculiar properties of opium is, the promotion of a wider knowledge and a more general application of them in practice; and he feels assured that, if opium is given in the conditions and doses above indicated, it will not disappoint the obstetric practitioner.

Carbolic Acid in Burns.—Dr. W. W. Hewlett, of Babylon, L. I. (*N. Y. Med. Journal*) believes that in carbolic acid we have an invaluable agent in the treatment of burns of superficial character, the first and second degrees. His mode of application is, to soak a piece of lint, or folded cotton cloth, of the size of the afflicted region, in a mixture of one part of the acid (liquid) to 8 parts of glycerine or linseed oil.

Tilt's Suppositories.—Edward John Tilt, M.D., London (*Med. and Surg. Reporter*), administers the following suppositories;

Rectal Suppository.

℞. Extract hyoscyami gr. iv.
" belladonnæ gr. ½

To be made round, coated with cocoa butter, and introduced at night. This is the suppository Dr. Tilt most frequently prescribes, for it relieves pain without constipating.

Vaginal Suppository.

℞. Morphiæ sulphatis, gr ¼
Butyri cocoæ q. s.

For one suppository, to be used at night.

Hypodermic Injection of Morphia in Sun-Stroke. Dr. J. H. Hutchinson (*Penn. Hosp. Reports*) reports the very great success which followed the hypodermic injection of the sulphate of morphia as a remedy for the excessive jactitation, restlessness, and convulsions, which so often attend sun-stroke. It was used as auxiliary to the ice treatment.

New Means of Treatment of Fracture of the Scapula.—E. E. Colman, M.D., St. Louis, Mo. (*The Med. Archives*), has contrived an appliance for fracture of the scapula, which, upon trial, obviates the inconveniences of the roller, viz. causing excoriations of the axilla, while it meets all the indications and is more simple than bandages. It consists merely of a "waist," made of three thicknesses of muslin to give it firmness and strength, and laced over each shoulder, and under the arm of the side opposite the injury, in such manner as to make it fit perfectly tight. It can be worn with comfort. He has used the "waist" for fractures of the ribs, and found it equally efficacious. It was recently exhibited before the St. Louis Medico-Chirurgical Society, the members of which were favorably impressed with it, and expressed their determination to use it.

Belladonna in Hæmorrhoids.—Dr. J. Mulvany (*Med. Press and Circular*) recommends the use of belladonna in this affection. The bowels should be cleansed out with castor oil, and then 2 drops of fluid extract of belladonna should be given every four hours, with lavements of cold water twice daily.

Glycerole Pheno-Albuminous.—M. Déclat (*Tribune Medical*) gives the following glycerole, in skin affections: ℞ Phenic acid, pure and in crystals, 20 grains; glycerine, 50 grains; yolk of fresh eggs, 50 grains. Mix the glycerine and the yolk of the eggs thoroughly, and then add the phenic acid.

Veratrum Viride in Pneumonia.—Dr. W. L. Gile, St. Louis, Mo. (*The Med. Archives*) thinks that veratrum viride is a remedy destined to rank with, if not higher than digitalis in certainty of action upon and control of the circulating system in pneumonia. Practitioners who have been using it for 15 years in this and other febrile diseases, both in adults and children, speak of it in the highest terms. The dose should be at first small, 3 or 4 drops of the saturated tincture, in simple syrup or syrup of squills, increasing one or two drops each dose until a decided impression is made. If, from the violence of the symptoms, a speedy impression is demanded, a large dose—10 or 12 drops—may be given at first, and then re-commence with the smaller.

Ointment for Hæmorrhoids.—Prof. Fordyce Barker, of the Bellevue Hospital Med. College, recommends the following ointment in hæmorrhoids:

℞. Unguentum Gallæ Comp. ..... ʒ j
Plumbi acetas ..... ʒ j
Morphiæ Sulphas ..... ϑ j
Mix.

Valerian in Acute Rheumatism.—The pain of the inflammation attending acute rheumatism is generally subdued by valerian administered in the form of a bath. The bath is made by boiling valerian root, one pound, gently in a gallon of water for about a quarter of an hour, and then, after straining, adding about 20 gallons of water in an ordinary bath tub.—*The Practitioner.*

Improved Apparatus for Fractures of the Thigh.—Arthur B. Stout, M.D., San Francisco, California (*Cal. Med. Gazette*), offers an improved method in the treatment of fractures of the thigh, which renders the whole member as nearly as possible isolated. All the patent

instruments so ingeniously contrived, fail in their want of stability. The object herein is to obtain facility in all the dressings and changes of bandages during the protracted treatment of a fracture of the thigh-bone. For this purpose a platform is made upon the baseboard of the apparatus, which is of solid oak plank, one inch in thickness, raised one-half or three-quarters of an inch higher than the latter, and strongly attached to it. The platform is narrow at the ankle, broad at the calf of the leg, compressed again at the knee-joint, and spreads out broad again where the thigh is to rest. It is somewhat shortened at the foot in order to leave a depression for the heel. A prolongation at the end of the baseboard, say 9 by 1½ inches wide, serves to receive on its extremity the brass piece which is the fulcrum of the extension force. A long brass screw attached to the foot-piece and passing through the fulcrum, is acted upon by a screw-nut at the end, and procures the necessary extension. The counter-extension or perineal band is a strong buck-skin pad, with a buckle and strap. On the strap is attached the firm leather cap or socket, three inches deep, which receives the long extension splint. It is easy at any time during the treatment to open the dressings and review the fracture without disturbing the position of the limb. In a word, during the whole treatment of the fracture, the limb is accessible in all parts, and may be daily inspected without pain or annoyance to the patient, and very little loss of time to the surgeon.

Treatment of Acute Rheumatism.—O. O. Burgess, M.D. (*Cal. Med. Gazette*), has treated 87 cases of acute rheumatism, absolutely without local applications to the inflamed joints of any kind whatever, and no implications of either the endocardium or pericardium, nor any other complication has occurred in a single instance. The general treatment has been essentially alkaline, relief from pain being secured by the free use of opiates. The arthritic inflammation has never been excessive, nor prolonged beyond the average time of its disappearance under the usual methods of treatment.

Hypodermic Injection and Blisters.—M. Bricheteau gives a hypodermic injection of morphia at the moment of applying the blister, in order to avoid the pain produced.

Therapeutic Effects of Lupuline.—M. Méhu finds that the resin of hop, in the dose of 20 to 30 grains, produces often an intense headache; sometimes nausea, and even slight vertigo, and always a state of insensibility lasting several hours, but without hallucinations such as haschish causes. He has found each time a subsequent and notable increase of appetite.

Milk Diet in Disease.—The quantity of milk calculated for an adult is four pints daily. Milk is an aliment of easy and rapid digestion, which leaves little residue, favoring diuresis. A milk-diet strictly followed, has rendered great services in organic affections, hypertrophy of the heart, ulcerations of the digestive tube, and dropsies.—*Cal. Med. Gazette.*

Treatment of Idiopathic Insanity.—James George Davey, M.D., M.R.C.P., Lond. (*The Medical Mirror*), advises in cases of mania who present a thin and cadaverous aspect, a cold skin, and feeble, rapid pulse, who talk much and incoherently, that a full dose, say half a grain, of morphia be given at bedtime; or that ℥j of the following mixture be taken every few hours:

℞	Tinct. hyoscyami	ʒ iv.
	Mist. camph	℥ iv.
	Liq. opii sed	ʒ ss. to ʒ j.
	Aq. menth. sat. ad	℥ vi.
	Tinct. card. co	ʒ j.

But be assured that unless patients are allowed a liberal and wholesome diet, with some good porter or bitter ale, the Pharmacopœia may be exhausted in vain.

Prof. Fordyce Barker's Prescriptions in Hæmorrhoids.—The ordinary prescription for hæmorrhoids, of this distinguished practitioner, is this:

℞.	Sulphur Sublimatum	ā ā ℥ ss.
	Magnesiæ Sulphas	
	Potassæ Bitartras	
	Magnesiæ Carbonas	

Mix—Give a tablespoonful before breakfast.

In stubborn cases attended with considerable constipation, the following pill is recommended.

℞.	Pulv. aloes	ā ā gr. ss.
	Ex. nux vomica	

Ft. pil. tales. S. One pill three times daily.

In hæmorrhoids complicated with slight looseness of the bowels, he advocates this prescription:

Ferri Sulphas	gr. j.
Pulv. aloes	gr. ss.

Ft. pil. tales. S. One pill three times daily.

Alcohol as a Therapeutic Agent.—Z. C. McElroy, M.D., President Muskingum County Medical Society, Ohio (*The Medical Archives*), in an able article on "Alcohol; Viewed by the Eye of Science as a Therapeutic Agent," gives his views as follows: 1st, That alcohol retards the normal velocity of the fundamental or organic processes of life, nutrition and oxidation—repair and waste—or constructive and destructive metamorphosis, though oxidation in a higher degree than nutrition. 2d, That it not only absolutely retards the normal velocity of the molecular transformations, oxidation, or tissue changes, supplying the dynamics or forces of life, but relatively obstructs the exit of matter already rendered effete from the system. 3d, That its therapeutic effects are simply to economize in the expenditure of the forces of life, itself adding nothing that is available for oxidation and the production of force, but only supplying conditions to limit undue waste. 4th, That the diminished molecular transformations correspond to a diminished grade of organic life. The highest grade of life is only attainable when the processes of repair and waste are in the highest states of activity. This is the end accomplished by the so-called "training" of horses for the sports of the race-course, and spirits are given to them in the intervals between their "heats" for the reasons here laid down. 5th, That there are therapeutic indications in which its action must be regarded as of the highest possible importance in limiting undue waste, as well in disease as in the decline of life. 6th, That young persons, and those in middle life, in good health, must necessarily be damaged by the introduction into their systems of alcohol, because, by its interference with the fundamental processes of repair and waste, it reduces them to a lower grade of organic life. 7th, That confirmed inebriates must be regarded at all times as in a pathological, and not physiological, condition; and that self-reformation is seldom possible without certain conditions not yet discussed and agreed upon by the profession or settled by experiment.

Among those conditions it seems probable that the most important will be abstinence from cocoa, tea, coffee, alcohol in every shape and condition, and opium, and every other drug or substance whatever interfering with the normal activity of the organic processes of repair and waste.

Severance of the Femoral Artery by a Red Hot Bar of Iron; Ligation of the Artery and Recovery.—F. Hinkle, M.D., Columbia, Lancaster County,

Penn. (*The Medical Archives*), was summoned in November, 1868, to see a workman at the Susquehanna Rolling Mill Company's works, who had been badly burned by a red-hot bar of iron running into his leg. He found on his arrival that his patient, an American, æt. 30, had been caught by a ¾-inch square bar of iron, which was at welding heat, the end of which, passing posterior to the left thigh, had entered the inner side of the right thigh, about four inches below the ischium, severing the femoral vessels and penetrating to the bone. When first seen, fifteen minutes after the accident, his countenance indicated great suffering and anxiety, almost pulseless, pale and faint—perfectly blanched—cold and collapsed, and still bleeding freely (a fellow-workman had previously bound the wound tightly with a hand towel). The femoral artery was immediately ligated just below the origin of the profunda, and the hæmorrhage was immediately arrested. On examination the surrounding tissues were found to be destroyed, and three fingers could readily be passed into the wound down to the bone. The entire limb was then enveloped in cotton, and dry heat applied to sustain the temperature; stimulants—brandy and ammonia—ordered *ad libitum*. On the fifth day the wound commenced to discharge slightly. His stomach had become so irritable that it was with great difficulty either stimulants or nutriment could be retained. No pulsation was perceptible below the ligature. By the fifteenth day the temperature of the wounded leg was nearly normal. The collateral circulation was now sufficient to sustain the temperature without the aid of artificial heat. On the twenty-third day the ligature came away. From this time the case progressed without an unfavorable symptom; the wound healed finely; January 1st he was able to be out of bed: by March 1st, 1869, he was again at work in the rolling-mill.

The *treatment*, after ligation, consisted mainly in sustaining the temperature of the wounded limb by artificial heat until the collateral circulation could be established; the administration of stimulants, and the application of a solution of the potassæ permanganas (30 grains to a quart of water) as a detergent and antiseptic. The bowels were kept open by the use of saline enemata, and small doses of morphia and Dover's powders given to control the pain and secure rest.

No pulsation is yet perceptible in the vessels of the leg or foot.

The points of interest in the case were: The great loss of blood; the continued prostration from the effect of shock and hæmorrhage combined, endangering the establishment of the collateral circulation; the excessive nausea and vomiting; the possibility of secondary hæmorrhage from the only available point of ligature being involved in the injury to the surrounding soft parts from the terrible cauterization; also from the unavoidably close ligation to the origin of the profunda; of septic poisoning during the slow detachment of the destroyed tissues; of death and exfoliation of bone from the effect of contact of the red-hot bar of iron; or without this, of deformity and lameness as a consequence of the extensive destruction of the soft parts.

CAUSE AND TREATMENT OF SCURVY.—Dr. Farr thus sums up the statements made in his paper on Scurvy:

1st. So long as the food of the sailor is so composed as to need the addition of lime-juice, scurvy can never be effectually prevented.

2d. Lime-juice will always be necessary while salted meat is the only flesh food employed.

3d. Salted meat as a cause of scurvy is not owing to its deficiency in the salts of potash or any other element.

4th. Lime-juice cures or prevents scurvy, not by virtue of its salts of potash, nor by exerting any direct influence upon the blood, but by serving as the agent by which the food becomes reduced and rendered fit for absorption, by taking the place of the gastric fluid.

5th. Green succulent vegetables, in the absence of lime-juice, are not indispensably necessary to the prevention of the disease.

6th. Change of flesh food is indispensably necessary to its prevention.

THE HARMLESSNESS AND ADVANTAGES OF THORACOCENTESIS.—In the able report which M. Besnier has just read to the Medical Society of the Hospitals, on the medical constitution of Paris during the months of March and April, there is a very interesting remark touching the harmlessness and benefit of thoracocentesis. During the period referred to, twenty-five cases of severe pleurisy had occurred in the various hospitals. The operation was performed in fourteen cases with complete success; and it was observed that the patients who were punctured recovered much more speedily than those in whom the slightness of the effusion did not seem to necessitate any surgical intervention. In four of the cases wherein the operation was performed, the effusion was not abundant, and the effects proved quite as satisfactory. These results speak highly in favor of thoracocentesis; and the time may come when the operation will be performed in cases of slight pleuritic effusion, to the utter neglect of blisters, purgatives, diuretics, and depletive measures, which often weaken the patient, and cause him great suffering.—*Lancet.*

THE LOCAL TREATMENT OF CROUP.—Dr. Weber, of Darmstadt, has recently been employing lactic acid in croup, to the use of which he was led by noticing its remarkable power of dissolving fibrinous exudations. In the first instance he adopted it to clear away the croupal membranes which collected in the canula after the performance of tracheotomy. The beneficial results were so great that he proceeded to apply it locally before attempting to operate, and although he receives many cases of this disease into his wards he has never had any occasion since commencing its use to open the trachea. The mode of application of the lactic acid is by means of the inhalation (spray?) apparatus, from ten to twenty drops in half an ounce of water being inhaled, at first every half hour, and then in proportion as the breathing is relieved, the quantity being reduced from ten to five drops in the same quantity of water. He never found it requisite to continue the remedy for more than twelve hours. Usually after the application had been repeated for a few times, he discontinued it, and replaced it by strong camomile tea. The eyes and other parts of the face must be carefully protected from the steam, or its cauterizing effect becomes immediately apparent.—*Lancet.*

MURIATE OF AMMONIA IN NEURALGIA.—Dr. Cholmeley, in a communication to the *Practitioner*, confirms the opinions of Dr. Austie as to the great value of muriate of ammonia in neuralgic and myalgic pains, and also in cases of absent or suppressed menstruation.

VALUE OF POULTICES.—Dr. Callender, of St. Bartholomew's Hospital, claims highly favorable results from the use of large poultices of wheat or flax-seed meal, in cases of lupus, in ulcers, in phlebitis, and in amputations. In the latter cases he envelops the stump immediately in a large warm poultice, taking care to have the wound thoroughly dry before closing it.—*Practitioner.*

INHALATION OF OXYGEN.—The *Practitioner* contains a

paper by Dr. E. Mackay, detailing a number of cases of phthisis and other pulmonary diseases successfully treated by inhalations of oxygen gas, diluted with common air, in proportions varying between six and twelve parts of oxygen to sixty of air.

ADMINISTRATION OF ARSENIC.—Iretus Greene Cardner, M.D., N. Y. (*N. Y. Med. Journal*), believes that in all cases, except where it is used as an antiperiodic, one-drop doses of Fowler's solution, equal to $\frac{1}{120}$ or $\frac{1}{130}$ of a grain of arsenious acid, are ample, and in many cases even less could and therefore should be used. The doses of the books are based upon what experience has proved can be tolerated, without reference to the quantity necessary, rather than upon a sound physiological law of what is required to produce a certain physiolog cal result. In consumption arsenic has the power of arresting disorganization, and of increasing the assimilative and reparative processes.

ANEURISM OF THE ASCENDING AORTA TREATED BY GALVANO-PUNCTURE.—Sig. Ciniselli (*N. Y. Med. Journal*) successfully treated at the hospital of Cremona, Italy, an aneurism of the ascending aorta by galvano-puncture. The patient, a male, 46 years old, a coachman by occupation, had a rounded tumor to the right of the sternum, elevated from one to one and a half centimetres transversely, somewhat less vertically. This aneurismal tumor was formed by a curve limited to the 3rd and 4th ribs, and the third intercostal space, nearly doubled in extent. The pulsation was quite strong in the centre of the intercostal space. The operation by galvano-puncture was performed as follows: Three needles of polished steel, one millimetre in diameter, were plunged into the third intercostal space: the first at the distance of one centimetre and a half from the sternum, the others still farther from the median line, and about two centimetres apart; they were all three shaken violently by the pulsations of the aneurism. The electric current was derived from a voltaic pile of thirty couples, having the dimensions of ten centimetres square, and in which the exciting element was a saturated solution of sea-salt. Altogether the current was applied for forty minutes. The skin covering the tumor was red and tumefied. The patient was ordered to keep his bed for three weeks, digitalis being exhibited to moderate the force of the circulation, while, at the same time, he was placed upon a strong meat diet. He left the hospital 43 days after the operation. 58 days after the operation, the tumor had disappeared, leaving but a slight tumefaction, upon which the eye no longer distinguished pulsations. Seventy-four days after the operation, the patient feeling entirely restored, and tired of doing nothing, resumed his previous occupation.

POWDER FOR INDOLENT CONDYLOMATA.—The *L' Union Medicale* contains the following formula for a dressing in indolent condylomata:

℞. Pulv. alumin. et potassæ,
Pulv. sabinæ, āā ʒ i.
S.

Constitutional remedies are to be employed, in conjunction with the powder.

THE ACTION OF TARTAR EMETIC.—The importance of deeper investigations into the action of medicines than any yet realized in this country is made apparent by some of the more searching inquiries of German experimenters. One of these, Dr. Nöbiling, has lately been experimenting on himself and on some of the lower animals with tartar emetic, and one of the conclusions at which he arrives seems to us somewhat startling. The following are his conclusions:—1. There are two independent modes of action in tartar emetic; one on the heart, and the other on the intestinal canal. 2. The action of the potash is on the heart, and that of the antimony is on the intestines. 3. Potash has a directly paralysing action upon the heart. 4. The tartaric acid is without any effect upon the system.

The conclusion to which we direct special attention is the third, as to the paralysing power of tartar emetic residing, not in the antimony, but in the potash. Dr. Nöbiling endeavored to ascertain the physiological effect of the different ingredients. He found "that while a small dose of potassio-tartrate of antimony caused death in a frog, the same dose of sodio-tartrate of antimony produced no effect." Nowadays, when we are using the salts of potash by the ounce, or even by the pound, it seems rather startling to be told that the depressing power of tartar emetic on the heart resides in the potash, and is so great that Nöbiling recommends the ammonio-tartrate of antimony, instead of the potassio-tartrate, for therapeutical purposes. We draw attention to Nöbiling's conclusions, not because we are convinced of their soundness, but to illustrate the need for a sounder therapeutical science, that will tend to harmonize common and scientific observation. It is quite possible that potash has a depressing power on the heart. But there is a terrible inconsistency between Nöbiling's conclusions and some of our best daily practice.—*Lancet.*

RADICAL CURE OF VARICOCELE.—The following case fully explains Mr. Barwell's simple method of operating for the cure of varicocele. Mr. Barwell separated the vas deferens and spermatic arteries from the veins, keeping the former back and the latter forward; passed a needle, armed with annealed iron-wire, behind the veins—i. e., between them and the vas deferens,—beginning on the outer side of the scrotum, and bringing it out on the inner side of the cord. Then the needle re-entered the orifice of exit, passed in front of the veins, and came out at the point where it first pierced. Thus a loop of wire, passed completely round the veins, was lying inside the scrotum, but involving no part either of the skin or fascia. It is this arrangement which renders the proceeding so painless and so safe. The wire, when not too tightly twisted together, compressed the vessels, and a clot immediately formed at the distal side of the tie; the rest of the wire was twisted in the opposite direction, round a roll of lint. Every day the piece of lint was turned once round, so as to give an additional twist to the wire until the 20th—a week after the operation—when the whole wire came away. It had therefore completely cut through the veins, and its loop was twisted up to a small eye that would have just permitted a mustard-seed to pass. There is no swelling of the testicle itself, but a good deal of loose swollen tissue around its back part. This is probably the severed ends of the veins. The testicle to be strapped.

The patient was discharged, cured, in 13 days after the operation.

SEDATIVE BELLADONNA PLASTER.—The following formula, for a rheumatic and neuralgic plaster, has been devised by Dr. Boulou, in the treatment of rheumatic and neuralgic pains: emp. plumbi, 16 oz.; ext. pini sylvestris, ext. of belladonna, of each 1½ oz. Spread evenly, over fine strong linen, so that every square inch should contain two grains of the active ingredient incorporated in the plaster.

He has used this plaster in these troublesome affections in several instances, with success.

PULVERIZATION OF PHOSPHORUS.—Phosphorus may be reduced to a very fine powder by melting it in a hot concentrated solution of any neutral salt, or even of a syrup, and shaking continually until cold. Phosphorus is reduced to a finer powder in urine than in water. This has been attributed to the presence of urea; but M. Blondlot has proved that it is simply a consequence of the density of the liquid.—*Journal de Pharmacie.*

THE PREVENTION OF SCARLET FEVER.—W. Budd, M.D. (*British Medical Jour.*), suspects that the discharges from the nose, throat, and bowel, are especially virulent in the propagation of scarlet fever. To annihilate the germs proceeding from these various sources, he is in the habit of enforcing the following simple precautions in all cases:—1st. All needless woollen or other draperies which might possibly serve to harbor the poison are taken out of the sick room. 2d. For the reception of all bed and body linen on its removal from the person of the patient, a vessel containing water impregnated with Condys' fluid or chlorides always stands in the room. 3d. A basin, charged with chloride or carbonate of lime, is kept constantly on the bed for the patient to spit into. 4th. Pocket-handkerchiefs are proscribed, and small pieces of rag are used instead for wiping the mouth and nose. Each piece, after being once used, is immediately burnt. 5th. As the hands of nurses of necessity become soiled by the specific excreta, a good supply of towels and two basins—one containing water with Condys' fluid or chlorides, and another plain soap and water—are always at hand for the immediate removal of the taint. 6th. All glasses, cups, or other vessels, used by or about the patient, are nicely cleaned before being used by others. 7th. The discharges from the bowel and kidney are received, *on their very issue from the body*, into vessels charged with disinfectants.

The germs which are thrown off by internal surfaces are robbed, by these measures, of their power to propagate the fever.

He does not attach much importance to fumigating the sick room with chlorine or sulphurous acid, as they have no appreciable influence in preventing the spread of infectious disorders. To prevent the minute particles, which are the minute carriers of the poison, from taking wing until they can be disinfected *in situ*, the body, scalp included, should be anointed twice a day with olive oil. He uses oil slightly impregnated with camphor. Camphorated oil is an agreeable application to the patient, and relieves the itching incident to some stages of the disorder.

As soon as the patient is able to take a warm bath, it should be repeated every other day, until four have been taken, when the infection may be regarded as complete.

To complete the preventive code, immediately after the illness is over—whether ending in recovery or death—the dresses worn by the nurses are washed or destroyed, and the bed and room are thoroughly disinfected. After all these measures have been properly attended to, the taint is finally extinguished.

THE HYDRANGEA ARBORESCENS.—S. W. Butler, M.D., announces in his *Med. and Surg. Reporter*, that he has first presented to the notice of the profession the *Hydrangea Arborescens*, for the purpose of removing small calculi and sabulous deposits from the bladder. This was done in an inaugural thesis for the degree of M.D., at the University of Pennsylvania, in 1850. Soon afterwards the "Eclectics" introduced this agent into their materia medica, and it is a standard drug with them at the present time.

Dr. T. N. Tayman, of Galena, Kent Co., Maryland, writes that he has administered the *Fluid Extract of Hydrangea* on several occasions, and finds it highly satisfactory.

THE WIRE LOOP—A SUBSTITUTE FOR THE LIGATURE.—A. M. Pollock, M.D., Pittsburgh, Pa., (*N. Y. Med. Journal*), conceived, in the winter of 1859–60, the idea of arresting hæmorrhage by a loop of wire thrown around the blood-vessel, as a substitute for the ordinary ligature; also as a substitute for compression, or the ligature, in the treatment of aneurism. Feeling satisfied that the loop possessed all the advantages of acupressure without its defects, he lost no time in subjecting it to the test of experience. To show what advantages are claimed for this substitute for the ordinary ligature he expects:

1st. Union by first intention *more frequently.*
2d. Secondary hæmorrhage *less frequently.*
3d. Equal facility in application.
4th. The foreign body can be removed at pleasure.

He is satisfied that, if it were only an equality with the organic ligature in all other respects, except the facility with which it can be removed, it should have a decided preference. For some time after he commenced its use, he continued to tie small vessels with silk ligatures, but he has had so much trouble in removing them, that of late he applies the loop on all vessels that require a ligature. He makes no claim to originality in the use of metallic substances as a substitute for the ordinary ligature, but only for the method of applying the wire so that it will securely control hæmorrhage and admit of removal at the pleasure of the operator. Twenty-four cases are published showing the applicability of the loop. The generally-received opinion, that it is indispensable to divide the two inner coats by the ligature, to insure occlusion of the canal, is contradicted by the condition of the arteries in Cases XV and XXIV—the first, a case of amputation of scirrhus of left mamma, the other a case of flap amputation below the knee. It would appear that the irritation produced by the pressure of the wire causes effusion of plastic lymph in the walls of the artery, as well as on the internal coat, and that occlusion occurs as much from the general thickening as from adhesion of the sides of the vessel.

The method of applying the wire is as follows:—Two needles can be used more readily, and should be fixed on each end of the wire, and passed from the cut surface of the flap, on opposite sides of the artery, to the cutaneous surface. A needle of the same dimensions without a cutting point is preferable. A good steel darning needle answers every purpose, and with a needle of this description there is less danger of wounding a vessel which may be on its track. The needle is passed close to its walls, about half an inch from its cut extremity, avoiding, when practicable, the nerve and vein. The points of emergence on the cutaneous surface should be from ¼ to ½ of an inch apart, and, after making sufficient traction to arrest the flow of blood, the ends may be twisted together, knotted together, or tied over a small cylinder of gutta percha, or a bit of wood pencil. When the wire has been properly applied, no foreign body will be seen on the cut surfaces of the flap. He has used annealed iron wire 24 times, pure silver wire 23 times, and can give no preference. To remove the loop, it is only necessary to seize one end with a pair of forceps, cut one strand, and make gentle traction by rolling the wire around the forceps in the direction of its concavity. The average time of removing the loop is 5½ days.

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A GENERAL CODE OF ETHICS FOR THE LEARNED PROFESSIONS.

ONE of the great disadvantages under which medicine labors as to its proper appreciation among the other professions is its abstruseness. It is partly on this account that those who are learned in other departments of knowledge are tempted to ape towards it a certain superciliousness. The lawyer is oftentimes glad of an opportunity to bother the doctor, and speak disrespectfully of the art; the minister openly and defiantly panders to quackery, sneeringly speaks of the science as a handmaid to infidelity; the journalist never tires of flinging his paragraphs of ridicule and being funny over the doctors and their dogmas—in fact, the majority of the educated classes have by a common consent taken up the cudgel of opposition against us.

As a natural consequence, the medical profession are ready to show fight and nurse their wrongs. The wrong-doing is not altogether on one side; we are not as a class faultless. Retaliation to a certain extent is natural, but we should not carry it so far that we become offensively arrogant. This latter feeling has tended as much to widen the breach and make compromise an almost impossibility as anything else. We have a right to know most of the peculiar merits of our own calling, and to be firm believers in our own creed. We have been educated in a particular scientific faith, and we too often yield to the temptation of indignantly defying the assaults of those who are known to be ignorant of our religion. But in this matter, as in others, we must not allow our personal feelings to run away with our judgment. If we expect concession we must be prepared to concede.

Much of the low estimation in which medicine is held by the community is due directly to covert hostility of the other professions. They being the leaders of thought for the people, must, of necessity, in the promulgation of their views, exercise a proportional influence. The very abstruseness of our science prevents us from appealing for our proper standing to the common sense of the people, and we must trust to others whose legitimate business it is to form public opinion.

There are many reasons why we should stand well in the eyes of the public, not only for the good of the profession *per se*, but for the benefit of the community itself. In the first place, we have a natural desire to see our calling take its rightful rank. Every true soldier has a commendable pride in seeing his colors saluted and his badges of honor respected. Then again we have been forced to admit that in the matter of preliminary acquirements we are as a class much behind the other professions. But while this of itself is no argument against our merit as a profession, there is every reason to be urged why we should enlist abler recruits under our banner. If we elevate ourselves to our proper level the law and ministry will not cheat us of our proper share of promising young men. We can thus fight more effectually against quackery, and give an importance to state medicine which the interests of the general public so urgently demand. To accomplish all this we must have the co-operation of the educated classes, and respectfully and with dignity enlist their endeavors in our behalf.

The question as to how this can be brought about is one not very easily answered. We think we have made one step towards it by the advocacy of the study of preliminary medicine in our schools and colleges. This will doubtless bring about its good results. We may expect more from this than from any other; but in a matter of so much importance to us we should not leave a stone unturned, nor a plan unsuggested that may look towards the accomplishment of the design. A plan which offers itself in this connection, although auxiliary to the one already referred to, is one deserving at least of a passing notice; it consists in the mutual adoption of a code of ethics for all the professions. We believe that this can be done without a great deal of difficulty, if the articles were drawn up by properly conservative representatives of each. Its object would be relatively to govern the action of each profession in such manner as would insure the rights of each, and to prevent any interference one with the other. There is no doubt that many little differences could be prevented by such a mutual understanding. Each particular profession has its own peculiar usages, and they have been sanctioned by custom and approved by experience. If we would have harmony in purpose and concert in action, all these peculiar views should carry with them their due respect. A physician has a relation with his patient which must not be violated by any outsider; a clergyman has an understanding with his parishoner, which, for the cause of Christianity, must not be interfered with; the lawyer and his client are bound together by equally strong ties, and no one should exercise any influence to dissever them. It is with the lawyer and the clergyman as it is with the physician—each desires to maintain his proper relation to his employers, and any attempt to

meddle with such relations is fatal to good feeling, common courtesy, and ordinary justice. If the relations which each profession should bear to the other were properly appreciated and conscientiously respected, one of the most direct means would be taken towards forming a much-desired brotherhood. If a clergyman was made to understand what was quackery, he would not advise his parishioners, who have confidence in his general judgment, to patronize it; if a lawyer was in like manner convinced, he would not wantonly fling aspersions upon our science at the foot of the very throne of justice itself; if the influential journalist was shown the evils growing out of self medication, he would be more particular not to lend his tacit aid to quackery by the publication of the cards of advertising nostrum venders, abortionists, and poisoners.

We doubt not that, if a code for each profession were properly drawn up by responsible representatives of the professions, the sense of ordinary justice and common courtesy to each other would secure its pretty general adoption. No one would feel warranted in interfering, and the rights of each and all would necessarily be respected to mutual satisfaction. Physicians have a code to start with, which as a whole must commend itself to the good sense of all. All that would be necessary would be to add to it one for the clergymen and one for the lawyers. This could be published as a whole in cheap form, and extensively circulated. It could also be introduced in our colleges and incorporated with the studies of the senior, and might be made an interesting offshoot to political economy and moral philosophy. Each graduate could besides have the opportunity of selecting a profession with some sort of appreciation of what would be expected of him; and if he chose neither, would be conscientiously bound to respect all, and exercise what influence he might afterwards possess in their favor, whether as a journalist, a popular lecturer, or a wise legislator.

It is so notorious that patients afflicted with insanity are so much better cared for in asylums provided for the purpose, that it seems strange that in this age of enlightenment there should be found persons so misguided as to attempt to treat such cases in their own homes. We have, however, good reason to believe that much of this is being done, and are reminded by a recent melancholy case of suicide that more stringent measures are needed to prevent the practice. The case in point is that of a lunatic who was confined for some time in the home of one of his relatives, but who escaped one night and was found drowned in a neighboring pond in the morning. It would be hard to judge which was the most insane of the two, the self-constituted keeper or the poor unfortunate patient.

Puerperal Convulsions.—Dr. White, of Fishkill, N. Y., announces, that cases of puerperal convulsions were successfully treated with bleeding and morphia.

Reviews and Notices of Books.

Circular No. 2.—War Department, Surgeon-General's Office, Washington, Jan. 2, 1869. A Report on Excisions of the Head of the Femur for Gunshot Injury. By George A. Otis, Assistant-Surgeon and Brevet Lieut-Col., U.S. Army. 4to., pp. 141. Gov. Printing Office.

We take pleasure in calling the attention of our readers to this admirable report.

The question of excision of the hip-joint is treated in a concise yet exhaustive manner, and the conclusions drawn are a logical and impartial summing-up of the evidence obtained from a vast array of facts, the testimony of numerous independent, intelligent, and trustworthy observers, and the careful study and analysis of the literature of the subject. The result is in favor of excision in that large class of cases in which the joint, trochanters, and upper portion of the femur alone are injured over coxofemoral amputation on the one hand, or temporization with subsequent interference by removal of fragments, or gouging in reserve, on the other.

Exception is made in cases of missiles penetrating the pelvis, or seriously implicating its bony case, and that comparatively rare class of wounds which absolutely kill the limb and make death without amputation infallibly certain. A certain class of cases of double wound of the same limb, one near or in the joint, and one below, the effect of the two being to render efforts at conservatism hopeless, may also be included in this category. The advantage demonstrated of the greater average length of life (over other operations), in finally fatal cases of excision, is one of the utmost importance. The few hours or days thus gained, with great comparative relief from distress, may be the most valuable of the whole life of the sufferer.

The writer of this notice is able to supply a link wanting in the case of Lomax, No. 267. The wound involved the trochanters and head and neck of the left thigh. Three gouging operations were performed, removing the whole of the head, neck, and most of the trochanteric portion of the femur. Each operation was followed by excessive prostration; but owing to the extraordinary care and attention which the patient received in the family of Judge Marshall, of Frederick, Md., he made a good recovery with a moderately useful limb.*

Our own experience amply confirms the thoroughly cautious, intelligent, exact, and scholar-like statements of Dr. Otis, while our reason and judgment applaud the scientific accuracy, perfect impartiality, and anxious desire to appreciate the precise truth which characterize his reports. The operation under discussion is of recent origin, and having taken its rise within the period of surgical activity and intelligence, its literature is very complete and accessible to students. Dr. Otis has prepared an excellent resumé of its history, and the present work is a correct guide to the study of the subject.

It is to be regretted it had not been better understood and more distinctly brought under the notice of the profession at the commencement of the war. It would unquestionably have had the effect of multiplying the operation, securing more accurate reports of cases, and, as we believe, fully and completely demonstrating its value both as a life-saving method, and as a tentative expedient for prolonging existence and mitigating pain.

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* If this should meet the eye of any gentleman having subsequent knowledge of the case he would oblige the editor of the Record by communicating with him.

Dr. Otis has recorded, and weighed in the scale of even-handed justice, every reported case occurring both North and South, and has carefully compared the results obtained with the statistics of coxofemoral amputation, and treatment by temporization and secondary and pathological operations in all their grades, from the removal of loosened fragments to amputation or extensive and repeated goughings. The conclusion is, with the exceptions stated, in favor of primary excision. This will become more and more decided in future by the better appreciation of cases from a hopeful point-of view, the use of local antiseptics and anæsthetics, and greater facilities for the nutrition and care of the wounded in battle, without distant removals.

If war cannot be abolished, it can certainly become humane and Christian towards soldiers who are placed *hors de combat*. The bibliography of this subject is quite extensive and remarkably complete. It would be difficult to overestimate the amount of labor and painstaking research required to compile this report. The Surgeon-General's Department deserves well of the country and the profession.

It is the duty of every man in the profession to give it his hearty support, and to make the extent and value of its labors known to those who exert influence and exercise power.

There should be no lack of the means to bring these works to complete perfection.

In this way the Republic can show she is not ungrateful to the people who sacrificed home, property, limbs, and life, and the profession which stood faithfully by her in her hour of trial.

Such works are an encouragement to the profession of medicine, a rebuke to ignorance, quackery, and sham, in all their varied and pretentious forms. They are solid stones in the arch which supports government, humanity, science, and civil society; are everlasting monuments of national greatness, and legacies to posterity more instructive, valuable, permanent, and eloquent than bronze or marble, obelisk, pyramid, or mausoleum.

We have not introduced quotations or statistics from the body of the work. We propose to return to the subject at an early day in a review of the circular on hip-joint amputation, and the one before us, in which we will lay an abstract and comparison of the two works before our readers for the benefit of those who do not possess them.

We cannot conclude without adverting to the valuable letters of Dr. J. S. Billings, Asst.-Surg., U.S.A., and Wm. Thompson, formerly Asst.-Surg., U.S.A.

THE JURISPRUDENCE OF MEDICINE IN ITS RELATIONS TO THE LAW OF CONTRACTS, TORTS, AND EVIDENCE, with a Supplement on the Liabilities of Vendors of Drugs. By JOHN ORDRONAUX, LL.B., M.D., Prof. of Medical Jurisprudence in the Law School of Columbia College, New York, &c., &c. Philadelphia: T. & J. W. Johnson & Co., 1869. 8vo., pp. 304.

OUR author gives the following good reasons for the production of the work before us:—"Having often been consulted by physicians in relation to their professional rights, and being compelled, in verification of my opinions, to search for precedents, or, in the absence of recorded adjudications, to seek for analogies outside of any works on the positive law of contracts, I became long ago convinced that there existed a definite and well-marked branch of the department of obligations upon which no systematic collection or exposition of principles had yet appeared in the form of a distinct treatise." No one better able to undertake such a self-imposed task could have been found, and no one who could have executed it better can be named.

The work is made up necessarily of many divisions, but each receives its particular and clear treatment. The desire of the author is evident throughout to avoid lengthy discussions, and, at the risk of appearing to be dogmatical, he trims his remarks into the merest statements consistent with absolute legal adjudication.

Part I. treats of the Rights, Remedies, and Liabilities of Physicians, and is divided into five chapters. Chapter I. takes up the subject of the legal status of Physicians, which in a general sense is practically well understood by the gentlemen of our craft. Not so, however, Chap. II., on the contract between Physician and Patient, which will be read with much interest. Fees and Remedies at Law are treated of in Chapter III., with a method and precision which answer the purpose of every medical man who may become, from the force of circumstances, specially concerned. As a natural offshoot, the law of personal liabilities claims attention in the following chapter, and is an exceedingly clear, full, and succinct exposition of the whole subject. In Chapter V., after considering the duty of patients, the apportionment of responsibilities between physicians and surgeons claims attention, following which is the relation of the law to superintendents of asylums for the insane, and for the government of medical societies. This closes Part I. of the work.

Part II., on Medical Evidence, is really the distinguishing feature of the work, and no physician who is liable to be called upon should neglect its careful and thoughtful study. Especially would we say this on the part of chapter third, wherein the evidence in cases of alleged insanity receives a masterly discussion.

Part III. contains the Ethics of Medicine, but this is *pretty* generally known to our profession. The Jurisprudence of Pharmacy embraces the whole of Part IV., and is subdivided into the following heads: (i.) Liabilities of Vendors of Drugs in general, and the implied warranty of soundness which accompanies sales of medicine; (ii.) Liabilities of manufacturing pharmaceutists for false representations as well as quality; and (iii.) Liabilities of dispensing pharmaceutists for negligence, want of skill, or unauthorized publication of prescriptions. The practical portion of this subject, it will be recollected, was treated upon by our author in these columns, and as we have already taken occasion to commend the views therein expressed to our readers, we shall not enter again into any detail.

In conclusion, we reiterate that it is in every respect a good and useful book, and worthy of its scholarly author.

A MANUAL OF ELEMENTARY CHEMISTRY, THEORETICAL AND PRACTICAL. By GEORGE FOWNES, F.R.S., late Professor of Practical Chemistry in University College, London, from the tenth revised and corrected English edition. Edited by ROBERT BRIDGES, M.D., Professor of Chemistry in the Philadelphia College of Pharmacy, with one hundred and ninety-seven illustrations. Phila.: H. C. Lea, 1869. 12mo., pp. 857.

FOWNES' Chemistry has for many years maintained a foremost rank as an authority, and now it comes to us in its tenth edition thoroughly rejuvenated and fully up to the present demand of the student and practitioner. Any one who studies the work carefully will be surprised at the perfectness of its method, the conciseness of its language, and the lucidity of the ideas advanced. This latter is saying a great deal for those parts of the science generally considered the most abstruse. A former edition of this treatise was our first text book

in chemistry, and we early learned to appreciate its worth; that appreciation has increased through its successive editions, and culminates in the last one. Messrs. Bence and Watts are still the English editors, and the accomplished, careful, practical, and thorough chemist, Dr. Robert Bridges, the American editor. To the latter gentleman the American edition is indebted for some very practical hints incorporated in the text, and for the addition of some very useful illustrations. If the student of medicine can afford but one text book on chemistry, we advise him to give Fownes' the preference.

A TREATISE ON THE FUNCTION OF DIGESTION: ITS DISORDERS AND THEIR TREATMENT. By F. W. PAVY, M.D., F.R.S., Fellow of the Royal College of Physicians, Senior Assistant Physician and Lecturer on Physiology at Guy's Hospital, London. From the second London edition. Phila.: H. C. Lea, 1869. 8vo., pp. 246.

DISORDERS of the digestive apparatus, in one form or another, are more rife in this country than perhaps in any other. The reason is apparent to any one acquainted with the habits of our people. No nation values time so much in a moneyed point of view as we do; everything in the shape of comfort, health, and happiness is sacrificed to it. We live under a high pressure of excitement, and have dearly to ourselves earned the reputation of a fast community. As a natural result, one of two things must happen—our nervous system must suffer, or our digestive organs must become deranged. The latter more frequently happens, and it is the rule rather than the exception to have our attention as physicians called to disorders of that function in by far the largest number of our patients. The necessity for obtaining all the light upon the subject possible, is then obvious to every practitioner. Dr. Pavy's work contributes in a measure to this end, and, while it is not so complete as a whole, as might be desired, has the redeeming qualities of containing some original and many suggestive ideas. It does not pretend to be more than a contribution to the literature of the physiology and philosophy of digestion, and as such it is a model of its kind. The author has a happy faculty of entertaining as well as instructing his reader, combining, so to speak, pleasure with profit. Accustomed as a teacher to present salient points, he succeeds admirably in outlining his subject. This faculty is particularly apparent in his remarks upon the physiology of the digestive process, all the necessary data being given to enable the student to appreciate the precise deviation from the healthy standard. He is not, however, so wedded to the theories of others as to make it impossible for him to have ideas of his own, and in this latter particular his work has a special merit. His remarks upon artificial digestion so clearly prove this quality in him, that we will refer to them somewhat in detail. The fact that post-mortem digestion occurs has never, we believe, been conscientiously denied. From the time John Hunter first published his views upon the subject, every observer has been compelled to acknowledge the fact, that the stomach, when it contains food at the time of death, undergoes disorganization similar to that of any other material exposed, under like circumstances, to the action of the gastric juice. Various explanations have been offered to account for this phenomenon, all of which have been entitled to some respect. Most of these are sufficiently well known to our readers to render their recital unnecessary. Of all that have come under our notice, the explanation of our author is the most rational, as well as most ingeniously original. The view advanced by him is seemingly reconcilable to every known fact connected with the digestive process, and seems to explain satisfactorily the reason why, in the first place, the stomach is protected during life, while containing the gastric fluid, and destroyed post-mortem. As we can get at the point more readily, we quote the author:

"The view that I have offered (*Philos. Trans.*, 1863) is founded upon the permeation of the walls of the stomach by an alkaline current of blood, and this agrees with the principle I have laid down as indispensable, for the circulation of the blood forms with us one of the essential conditions of life. It will not be disputed that the existence of acidity constitutes a necessary condition for the accomplishment of gastric digestion. Alkalinity is also a constant character of the blood. Now, the walls of the stomach being permeated by a current of alkaline blood, an opposing influence is raised to the occurrence of digestion. The gastric juice, it may be considered, is constantly tending to penetrate and act upon the stomach, as well as upon the food contained in its cavity; but attack upon the stomach is prevented by the destruction of solvent power that is induced by the neutralizing influence exerted by the current of alkaline blood which happens to be always flowing through the gastric walls during life.

"This view will be found to be perfectly reconcilable with the yielding of the stomach to the digestive influence of its secretion that is noticed to occur after death. As death takes place, the circulation is stopped, and the protective influence is lost that is afforded during life. There is only the blood that is stagnant in the vessels to exert a neutralizing effect; and should death happen to take place at a period of digestion, the neutralizing capacity of this will be altogether inadequate to prevent the gastric juice that is present attacking the stomach as well as its contents. Digestion of both stomach and its contents proceeds as long as the temperature is kept up to a suitable degree for the purpose, and the solvent power of the gastric juice remains unexhausted."

The portion of the work devoted to the derangement of the digestive functions, rationally, but rather briefly, discusses the phenomena and philosophy of vomiting, eructation, rumination, perverted appetite, pain, and other morbid sensations connected with the stomach, flatulence, heartburn, water brash, acidity, intestinal digestion, colic, enteralgia, intestinal flatulence, diarrhœa, and constipation. These are, as before intimated, referred to only in outline, but sufficiently so to clearly point out the relation between cause and effect. Although all the subjects are well treated, those on vomiting, heartburn, flatulence, intestinal digestion, and constipation, will be valued for the great amount of practical good sense they contain. The same may be said of some remarks in the appendix on artificial digestion as a means of dissolving meat for producing an article of nourishment for the invalid. To the practitioner, and the student who cannot spare the time for the study of the more elaborate treatises, this work, on one of the most important of subjects, will be a welcome, handy, suggestive, and practical help.

WEDLOCK, OR THE RIGHT RELATION OF THE SEXES, DISCLOSING THE LAWS OF CONJUGAL SELECTION, AND SHOWING WHO MAY AND WHO MAY NOT MARRY. By S. R. WELLS, "Author of New Physiognomy," "How to read Character", and Editor of the Phrenological Journal. New York: Samuel R. Wells, 389 Broadway, 1869. 12mo, pp.—

THIS little work comes to us with the best of intentions, and is well calculated to fulfil all that its title might lead us à priori to expect. Unlike works upon this subject, calculated to minister to the public wants,

it has a strictly moral tone which does credit to the author, and stamps him in the estimation of the reader as at least a conscientious instructor. The physiological laws which he lays down are eminently sound and in consonance with all the well known medical authorities, and if the advice, in the main, could and would be taken by the people it would be well. But, alas for poor humanity, no enthusiasm which one author may throw into his subject can effect anything practical. His advice not to fall in love until you are well enough acquainted with physiology and physiognomy, to enable you to choose for yourself a proper companion, will hardly be heeded. Most mortals get hungry before the table is spread, and before they know what they are to eat.

We do not mean to say that his advice is not, in the main, good, but we must be privileged to take exception to the rule that a pretty face is not desirable. We decidedly differ with our author on that point, and we think the majority of our readers are of the same opinion. However, it is not within the province of a medical journal to discuss subjects except in a medical point of view, and so we reluctantly take our leave of his fine sentiment, appropriate poetry, and the like, being at the same time reminded as to how some good advice was lost upon a reckless medical student—"Dick," says his preceptor, "if you drink again you'll die." Dick straightened himself, and replied, "Doctor, I cannot help it—I am going to try!"

TRANSACTIONS OF THE TWENTIETH ANNUAL MEETING OF THE GEORGIA MEDICAL ASSOCIATION, held in the city of Savannah, April, 1869.

On perusing the Transactions of this Society, we find that about one hundred practitioners of the Southern Empire State are members in good regular standing. At the annual session, held at Griffin, 1867, a committee was appointed to prepare an address to the public on the "Relation of Charlatans and their Nostrums to Legitimate Medicine," and this committee, in their report, believe that quackery and quack-medicines are on the increase, and that consequently the people are seriously damaged in health thereby.

To the dignified silence of the profession the rapid spread of the evil is, in great part, to be attributed. Justice, alike to our profession and the millions of deluded victims of quackery, demands that the members, individually, shall publicly rebuke the evil and strike down the monster.

The committee recommend that five members be appointed by the President to memorialize the Legislature of Georgia, in favor of legislation for the public protection against these dangers, and that this be done annually until the object shall be accomplished.

The report of Dr. Thomas S. Powell, "On Medical Education," relates mainly to the subject of preparatory education in primary medical schools, and the following resolution is recommended for adoption by the Association:

Resolved, That in the opinion of this Association it would advance the cause and elevate the standard of medical education, if primary medical schools were organized in suitable locations, with terms of five months, with professorships of practice of medicine, physiology and pathology, medical chemistry, pharmacy and toxicology, anatomy and microscopy, principles and practice of surgery, and chemical surgery, obstetrics and diseases of women and children, materia medica and therapeutics.

The most important paper of the "Transactions" is "On the Importance of the Thermometer to the Physician in his Daily Practice," by Dr. J. G. Thomas, of Savannah. In this interesting and practical article, he particularly wishes to draw the attention of his fellow-members to the first point presented, viz.: The persistent daily use of the thermometer greatly facilitates the clinical recognition of disease, and aids the busy practitioner in coming to certain and safe conclusions, and relieves him of much anxiety of mind in doubtful cases. He believes, like Wunderlich, of Leipsic, that the physician should always have the "Thermometer" with him on his daily rounds of practice, in order that he may diagnose between tubercular affections, hydrocephalus, typhoid fever, pneumonia, complications of measles, low types of malarial fever, meningitis, and certain stages of Bright's disease.

The pamphlet closes with the address of the late President, Dr. L. A. Dugas, of Augusta.

The future prospects of this Association look encouraging, and the members seem to be imbued with fraternal love and a desire for the advancement of medical science in every branch, with the "Code of Ethics of the American Medical Association" as their guide.

THE NOMENCLATURE OF DISEASES. Drawn up by a Joint Committee appointed by the Royal College of Physicians of London. Subject to decennial revision. London: W. J. & S. Golbourn, 1869.

THIS volume has been in course of preparation for about twelve years, and it contains the result of a vast amount of thought and labor, to which many of the most eminent medical men of Great Britain have contributed. The idea of establishing a standard nomenclature had its origin in the medical department of the British army; and as a means of perfecting the statistical registrations of disease, both civil and military, such a nomenclature has been found absolutely indispensable. For such purposes, says the preface, "it is clearly requisite that there should be a uniform nomenclature of diseases, co-extensive with the area of investigation." The aim of the committee has therefore been to construct a nomenclature that shall be understood by medical observers in all parts of the civilized world, and which may be readily adapted to the national nomenclature of every country, serving as a complete index to all recorded investigations. This very difficult task has been most ably accomplished. The classification is based upon anatomical considerations, and diseases are also grouped as general and local. The English names of the various diseases are given in one page, in the simplest and most expressive words, and on the opposite page, arranged in parallel columns, are the equivalent terms in Latin, French, German, and Italian. Surgical operations, parasites, and congenital malformations have their place in the appendix. A general acquaintance with this admirable system of nomenclature will greatly facilitate medical observations everywhere, and, by rendering statistics explicit and universally intelligible, it must necessarily add to their practical value, and thus throw new light on the origin and causes of disease.

PATHOLOGICAL MUSEUM OF THE PENNSYLVANIA HOSPITAL.—The foundation of this collection was laid in 1762, a gift from Dr. John Fothergill, of eighteen views of anatomical structure, in colored crayon, three large plaster casts, and a case containing a skeleton.

This valuable collection has received many interesting specimens since 1860, while Dr. Thomas G. Morton was curator and pathologist to the hospital. The museum is now under the care of William Pepper, M.D., Physician to the Philadelphia Hospital, Curator and Pathologist to the Pennsylvania Hospital.

Correspondence.

MEDICAL MATTERS IN PARIS.

LETTERS ON ALBUMINURIA.

(FROM OUR SPECIAL CORRESPONDENT.)

PARIS, July 1869.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—The microscopic descriptions given by Frerichs and Wilks explain the appearances in the atrophic form. The uriniferous tubes, stripped of their epithelium, universally collapse, as they had already begun to do in the granulations. (See last letter.) The straight tubes also become indistinct, and at last almost undistinguishable, until separated by fine needles. They are stifled in connective tissue, which originates both in the proliferation of that normally existing between the tubes, and the organization of the fibrinous material exuded from the vascular plexus which surrounds them. The malpighian corpuscles in many places are wasted to half their usual size, having been destroyed in the crumbling away of the proteic and fatty granulations in the interior of their capsule. Others distend into little cysts, by the accumulation of urine, when the convoluted tube is so blocked up as to oppose its passage, at a moment when the malpighian tuft, still unaltered, continues its watery secretion. Others, again, remain distended by solid exudation, and rise in eminences above the uriniferous tubes strangled in connective tissue, thus forming the hard granulations characteristic of the atrophic form. They differ from the granulations of Bright simply in the greater condensation of their contents. This is the stage of *atrophy* described by Frerichs as the culmination of the disease.

Under the first anatomical form described by Bright, we have considered ourselves justified in recognizing, among other lesions, an incipient degree of an alteration that has been described as the "Amyloid Degeneration." In the complete development of this form of renal affection the kidney is voluminous, heavy, and pale, and at first sight might be mistaken for the ordinary "large white kidney," with which, no doubt, it has often been confounded.* Closer inspection, however, shows that its consistency is remarkably firm, hard, and tough, even leathery. The surface is uniform and smooth, without any mottling or deposit, except in the case of concomitant fatty degeneration of some tubuli; the cortical substance is hypertrophied, and the whole mass of the kidney appears composed of one uniform albuminous semi-translucent substance, except at the apices of the cones. This appearance is, however, only characteristic of extreme cases. In others,† the cortical substance is pale yellowish white, the convoluted tubes opaque, with little dots and streaks, and the straight tubes alone semi-translucent. In some cases (Harris) the malpighian corpuscles are scarcely apparent. In others (Jaccoud‡) they appear upon the surface of section, white and transparent, like brilliant drops of dew (Meckel).

In the autopsy performed by Harris, microscopical examination of the fluid expressed from the kidneys, discovered blood cells, epithelium from straight tubes, cells filled with minute oil globules, and granular and fatty detritus of cells and nuclei. Those portions of the cortex which had appeared opaque to the naked eye, now showed as a black deposit contained within the tubes, and were seen to consist of granular matter studded with oil globules. The malpighian corpuscles were remarkably distinct and semi-transparent.

The pathognomonic appearance of the amyloid kidney is only observed after the addition of iodine and sulphuric acid. A drop of a solution of iodated iodide of potassium, added carefully to the slice under the microscope, colors the malpighian corpuscles a transparent carmine by transmitted light, orange by reflected; streaks of the same color diverge from the corpuscle, following the direction of the afferent arteries of the tuft. The same reagent colors orange red the black opaque deposit that surrounds and invades the convoluted and straight tubes. On the addition of a drop of sulphuric acid, the color changes to dark purple, blue, and finally, after a quarter of an hour, deep red, brown and black.

The seat of this deposit is principally in the coats of the arterioles and arteries, beginning with the former.* According to Virchow the muscular coat is attacked first. Each cell fibre is replaced by a compact homogeneous substance, in the middle of which may be at first observed a central space corresponding to the nucleus which has disappeared. Gradually, however, all cell structure is lost, and there remains only a fusiform mass, in the midst of which it is impossible to recognize either membrane, or nucleus, or contents. When the muscular coat is completely invaded, the inner and outer tunics became involved, and ultimately the deposit extends to the entire parenchyma nourished by the arteries. This parenchyma becomes ischæmic from a double because. The small arterioles lose their propulsive contracting power by the destruction, the sort of petrifaction of their muscular coat; and afterwards the thickening of the three tunics diminishes, and even effaces the cavity of their canal.

According to Grainger Stewart the hyaline cylinders assume the characteristic coloration with iodine. But Cornil observes that they undergo no further change upon the addition of sulphuric acid, and considers their coloration to result from simple imbibition of the iodine. This latter author has always found the deposit extended to the epithelial cells, in cases where albuminuria existed.

There is still another and highly important form of renal lesion, which Bright describes, but without assigning it a place in his classification. In his case 14, where the anasarca was acute and the urine smoky and sanguinolent as well as albuminous, the autopsy discovered the kidneys in a different condition from any of the others previously examined. They were large, less firm, without adherence to the capsule, and of the darkest chocolate color, tinged with a few white points and a great number of black, so as to look like fine-grained porphyry. This color pervaded the entire organ, but the striations of cortical and medullary substance were preserved. A considerable quantity of blood oozed from the kidneys upon pressure.

This description applies to an intense hyperæmia of the kidney, and is repeated by Rayer, Martin Solon, and Frerichs, in their first form or degree of Bright's disease. According to the latter, the volume of the kidney may be nearly doubled, and that principally at the expense of the cortical substance, which is dark red and friable. The renous plexuses on the surface of the cortex, and surrounding the vessels of the pyramids, are distended with blood, and the mucous membrane of the basin covered with vascular ramifications. The malpighian corpuscles are red, distended, and more dis-

* Wilks' Lardaceous Diseases, Guy's Hospital Reports, 1856.
† Harris, Lancet, 1859.
‡ Clinique Medicale.

* Virchow, Pathologie Cellulaire. Trad. française.

tinct than usual, and capillary apoplexies are frequent, either in their interior or in their neighborhood.

The epithelium is not much altered in this form, but the canals are filled with coagulated fibrine, in the form of white, transparent cylinders. These sometimes are observed projecting from the uriniferous tubes, sure proof that they are formed in their interior.

In the midst of this general congestion, appear greyish bands in the cortical substance, formed by the pyramids of Ferrein, and opaque white lines in the pyramids of Malpighi, consisting of the tubes of Henle.

The foregoing descriptions embrace all the alterations of the kidney which have been observed in connection with dropsy or albuminous urine, in the triad constituting Bright's disease. It will be seen that they all involve some alteration of the malpighian corpuscles, or the interior of the uriniferous tubes, and justify therefore the general name of "parenchymatous lesions," which has been applied to them. The "interstitial nephritis," which affects the connective tissue between the tubes, with its various forms, simple nephritis, metastatic nephritis, and chronic nephritis or cirrhosis, and the special varieties signalized by Rayer, toxicologic and arthritic * nephritis, these should be most appropriately noticed during the discussion of the causal relations that unite albuminuria to the parenchymatous affection. For, by the absence of this phenomenon in the case of purely interstitial affections, we are at once provided with a logical dilemma that clears half the field open to hypothesis, and forcibly limits investigation to the other half.

I have enumerated the lesions of Bright's disease in simple succession, precisely as they might present themselves to any one in a series of autopsies. The relations between these lesions, their arrangement in separate forms or progressive stages, the efficient and remote causes of hyperæmia, granulations, fatty degeneration, atrophy, amyloid infiltration; the nature of these various morbid processes, their possible influence upon the character of the urine and on the production of anasarca—all these questions, discussed at first, exclusively with the anatomical elements collected in the present letter, will form the subject of the next.

P. C. M.

Removal of Two Grains of Indian Corn from the Ears.—Laurence Turnbull, M.D., Aural Surgeon to Howard Hospital (*Med. and Surg. Reporter*), advocates the use of the syringe in the removal of foreign bodies from the ear, as recommended by Dr. Roosa, and other aurists. He mentions the following case in point: A girl aged 4 years was sent to him with a grain of Indian corn in each ear, which had remained in for 24 hours. Efforts had been made by a previous physician to remove them by means of forceps, etc., but it only pushed them more firmly in, impacting them in the oval or ellipsoidal auditory canal. They were covered with dried blood, and the whole integument was swollen around them.

Eel-Oil a Medicinal Agent.—Rev. John Ambrose, M.D. (*Transactions of the Nova Scotia Institute of Natural Science*), in an interesting article "On the Fishes of St. Margaret's Bay," mentions that fishermen have a high opinion of the efficacy of eel-oil in removing the ill effects of a sprain. For this reason they bind the skin of an eel around the injured limb. A small quantity of eel-oil dropped into the ear is also one of their specifics for a recent deafness.

* See also Todd, Clinical Diseases of the Urinary Organs, 1857 and Ball. Visceral Rheumatism. Thèse de Concours, 1865.

Medical Items and News.

Asylum for Foundlings.—The Good Sisters of Charity have determined to establish in this city an asylum for foundlings. Contributions of money or suitable clothing will be received by the Sisters at St. Peter's, in Barclay street; St. Patrick's Orphan Asylum, Prince street; St. Mary's, East Broadway; St. Gabriel's, in East Thirty-sixth street, and Holy Cross, in West Forty-second street.

Dr. Livingstone, the Explorer.—Referring to Dr. Livingstone, the *Medical Times and Gazette* says: "Mr. H. A. Churchill, C.B., her Majesty's Consul and Political Agent at Zanzibar, has just arrived in this country on medical certificate. We are happy to hear that Mr. Churchill speaks with confidence as to the safety of Dr. Livingstone, from whom he has had letters of a date more recent than that of his reported murder. It is Mr. Churchill's opinion that Dr. Livingstone having heard of the discovery of the northern portion of Lake Albert Nyanza by Sir S. Baker, has directed his route in search of the southern boundary of that lake, and that in the course of a few months it is probable that further news will be heard from Dr. Livingstone himself."

St. Barnabas Hospital of Newark, N. J.—The Board of Trustees of St. Barnabas Hospital report that the new hospital will cost $30,000, and will accommodate sixty patients, with room for enlargement at small expense. During the year forty new patients were received. There are twelve patients at present in the wards, two of whom have been in the hospital more than one year. The receipts for the year were $4,470.57, and the expenses $4,404.94. The progress of the hospital during the four years of its existence is interesting. At first, a hired room with one patient, the only hospital in the city; three years ago a rented house with half-a-dozen patients; two years ago the old homestead fitted up for twenty patients; this year a commodious building will be erected with all the appliance of a first-class hospital.

New York State Inebriate Asylum.—The superintendent's report for the year ending December 31, 1868, says: "Of the two hundred and twenty-eight patients discharged from the asylum since May 1, 1867, one hundred and thirteen appear to have permanently reformed, after a single probationary trial. Satisfactory reports of the condition of these have reached the Superintendent through the medium of correspondence addressed to him, either by the men themselves, or by their friends. A large number of such letters have accumulated on our files, and they are in almost every instance most useful as well as interesting, not only by their emphatic, even eloquent, expressions of gratitude and happiness, but by their timely and impressive words of warning addressed to comrades and fellow-prodigals who still remained with us. By reference to the extracts from a few of these letters, which will be found in the appendix to this report (and which are presented as fair samples of the whole), it will be seen how positive and safe has been the reform, and what a moral and social resurrection has come of it. Eleven have fallen after a first trial, and four after a second; but returning and clinging to the asylum, have likewise triumphed in the end. Of sixty-eight we have no certain tidings, nor any means of ascertaining their present condition; but as many as these were in a highly favorable state of physical and moral health when they left, I think we may confidently claim at

least one-third of the number (say twenty-three) as reformed. Twenty-five may be set down as failures and incorrigible. We have no words of cheering assurance from themselves or their friends. Only four have died, and three have been insane."

THE KINGS CO. LUNATIC ASYLUM EXTENSION will cost $276,303.75.

HOME VISITATION OF THE SICK POOR.—The Commissioners of Public Charities and Correction are considering a plan for the systematic visitation of the outdoor poor at their homes. They propose the appointment of District Physicians to visit by their order.

A NEW HOSPITAL SITE.—The Sisters of St. Joseph's Hospital, Paterson, N. J.. have bought the property of the Gas Company for a new site.

HEAT AS AFFECTING THE PRODUCTION OF MONSTROSITIES.—From the recent researches of Professor Dareste, in Paris, upon the production of monstrosities in chickens, it is found that by varying the application of the heat to the egg, every form of known monstrosity can be produced at will.

GLASS NOT A CERTAIN INSULATOR.—An electrical coil has lately been made in London which sends the lightning spark through five inches of solid glass.

FISH AS FOOD.—Professor Agassiz says that "fish is a kind of food which refreshes the system, especially after intellectual fatigue. There is no other article that supplies the waste of the head so thoroughly as fish diet; and the evidence of it is in the fact that all the inhabitants of the seashores are the brighter population of the country."

PRINCE NAPOLEON'S POMPEIIAN PALACE, on the avenue Montaigne, in Paris, is about to be purchased by the municipality of that city and opened as a scientific institute.

CHOLERA VERSUS CLEANLINESS.—It is recorded in the *Gazette Hebdomadaire* that at a session of the Academie de Medecine in May, M. Fauvel mentioned a communication he had made three months previously as to what point of Europe was menaced by a new invasion of cholera. In that communication he had alluded particularly to the fears to be entertained relative to the region of the Red Sea on the occasion of the then approaching pilgrimage to Mecca. He had set forth, at the same time, the measures taken in view of the danger in India, especially in the English Provinces, at the Red Sea, at the places of pilgrimage, and in Egypt. A very watchful interference is practised in the ports of the Red Sea. At Mecca itself the Ottoman government has applied excellent hygienic and sanitary regulations on a grand scale. At the present time Mecca is provided with wholesome water in abundance, thanks to the inauguration of a new system of supply and distribution. Furthermore, enormous trenches have been dug to bury the remains of animals immolated in sacrifice. Also, sinks have been made, containing various disinfecting agents, for the dejections of the pilgrims. The pilgrimage this year has been even larger than in 1865. One hundred and ten thousand votaries have visited the holy city. The greater part of them went in caravans, the remainder by sailing vessels and steamers. Those who arrive by water are subjected to quarantine, whence the preference of the Mussulman for the caravan. During the solemnities only forty deaths took place, a fact which proclaims the utility of the precautions adopted.

Accordingly, says M. Fauvel, the cholera was not imported from India into the Hedjaz, and was not developed during the pilgrimage, in spite of the report, happily contradicted, of its appearance on board certain pilgrim ships. Thus, he adds, the pilgrimage is ended, and Europe may be considered in no danger for this year from this source.

TREATMENT OF SCARLATINA BY WARM BATHS.—Dr. Charles T. Thompson reports in the *Lancet* his method of treating scarlet fever. In the early stage of the disease the patient is immersed in a warm bath, and this is repeated frequently, as often as the strength of the patient will allow. This has at first a soothing effect, but is followed soon after by such an eruption—upon the surface—of so vivid a color, as greatly to astonish those who have never seen it before. After the first or second bath the appetite begins to return, and nutritious food is given. Dr. T. states that he has used this treatment now for fifteen years, and has not lost a single patient by scarlet fever.

A READY COATING FOR BURNS.—An exchange recommends the albumen of eggs as an efficacious application for the protection of burned parts from the air. Seven or eight successive applications are necessary.

DECLENSION OF THE CONSUMPTION OF TOBACCO.—Tobacco manufacturers state that there is an annual decline in the consumption of fine-cut chewing tobacco.

A HOSPITAL FOR LEPERS.—The Marquis of Bute has built a hospital for lepers at Jerusalem.

MORALITY OF PARIS AND THE PROVINCES.—The following statistics touching the proportion of illegitimate births in Paris during the year 1867—the latest on the subject—will perhaps have some interest for our numerous subscribers:

Legitimate children.	39,572
Natural children	15,472
Total births in 1867	55,044

The proportion between the legitimate and natural children is as 2.56 is to one, or, in other words, there are born in Paris for every one natural child, two and a half legitimate.

Out of the 55,044 natural and legitimate children there were 27,789 boys, and 27,255 girls. The number of still-born children was 4,334, and the total number of deaths, 43,415. The births exceeded the deaths by 11,629, which are to be carried to the account of the increase of population.

According to the statistics of population of the eighty-nine departments of France for the year 1865, the last published, we find the births thus enumerated:

Legitimate children	928,749
Natural children	77,004
Total births	1,005,753
Total deaths	921,887

In the eighty-nine departments of France the proportion of legitimate to illegitimate births is much larger than in Paris. In fact there is one natural child born there to twelve legitimate children. If from this calculation the natural children born in the twelve principal cities are deducted, there would be only one natural child to every thirty legitimate children born in the provinces. The constant influx of provincials into the cities accounts for the large number of illegitimate children born there.

SINGULAR CASE OF POISONING BY A FLY.—Captain Green, of Troy, N. Y., Deputy Inspector of Boilers, and Assistant Engineer of the Fire Department, about a fortnight since (Aug. 25), was bitten by a common

house-fly, which had been feeding on carrion, and had communicated the poison. The wound was on his right hand, between the thumb and index finger, and he soon experienced considerable pain, which gradually increased. The bite was at first supposed to have been from a mosquito, and treated accordingly by a druggist, and afterward by a physician. The pain and swelling continued to increase, and erysipelas setting in, Dr. Bontecon, the noted surgeon, was consulted, and pronounced it a bite by a fly. Dr. Aikin (who was attending Dr. Bontecon's patients during the latter's temporary absence), in order to relieve the pressure occasioned by the extraordinary enlargement, scarified the arm of Captain Green, from the elbow to the wrist, in four different places. He is now pronounced out of danger, but it will be a long while before he will recover full use of his arm.—*Troy Press.*

Female Medical Students.—Edinburgh has followed the example of Paris in admitting ladies to the regular study of medicine.

A Morphine Eater.—A laborer residing in Brunswick, Maine, has paid out during the last fourteen years about $1,300 for morphia, for the use of his wife. This expensive helpmate for a working man, once walked twenty-four miles to get her usual supply.

Bleaching Sponges.—The white sponges seen on the stands of our street peddlers, are bleached in the following manner: The softest, finest specimens are selected, and the sand removed from the cavities by shaking; they are then washed in hot water, and, after squeezing out the water, are placed in a bath of dilute hydrochloric acid, and allowed to remain for half an hour. They are then taken out, and, after another washing in hot water, are placed in a fresh bath of the dilute acid, to which has been added six per cent. of dissolved hyposulphite of soda, and are there allowed to remain twenty-four hours. The sponge is finished by washing in water, and drying.

Caffeine in Opium Poisoning.—H. A. Lennecker, of Jefferson City, Mo. (*St. Louis Med. and Surg. Journal*), in a dangerous case of poisoning with sulphate of morphia, injected, hypodermically, pure caffeine in grain doses, three grains in ten minutes, and the patient quickly recovered.

Poisonous Letter Envelopes.—A writer in the *Tribune Médicale* states that letter envelopes found for sale at most of the Paris stationers, the interior of which are colored a bright green, are so colored by means of arsenite of copper, and according to the researches of Mons. Prof. Jeannel, each of these envelopes contains about twenty-five milligrames of this poisonous salt.

The "Mother" in Vinegar.—M. Bichamp (*Gazette Hebdomadaire*) states that the *mother of wine vinegar* is a membrane composed of microzmas—either simple or developed into the form of straight or curved twigs—engaged in a hyaline intercellular matter. It is similar to connective tissue in which cells are developed.

Bequest to the Connecticut State Hospital.—Among the bequests of the late Philip Maret, of New Haven, is one amounting to one-fifth of his property, being about $146,000, to the Connecticut State Hospital, the income of which is to be applied in providing free beds for the indigent patients, giving preference to those incurably affected, if such are admissible.

New Instrument for Treating Diseases of the Urethra.—Dr. Youngblood, of St. Louis (*Med. Archives*), recently presented before the St. Louis Medical Society an instrument for the application of temperature in the treatment of diseases of the urethra, consisting of a hollow silver sound, or a catheter without fenestra, with a partition extending to within a short distance of the apex; a uniform temperature of the part may be maintained, by passing a current of liquid through the instrument.

Iodine an Antidote to Strychnia.—Dr. Malloy, of Welborn, Fla. (*Rich. and Louisv. Med. Jour.*), reports a case of poisoning, from 2½ grains of strychnia, taken by mistake, by a female, instead of opium. He gave her ten drops of tincture of iodine, and a dose also by rectum, and in half an hour it was repeated. Up to the first dose she was growing rapidly worse, but as soon as the iodine was administered, the alarming symptoms were stayed; and when the second dose was given she began to amend, and in four hours was free from the effects of the drug, except the soreness, which was great, and lasted several days.

When called, he considered the case as hopeless, but as an experiment he gave the iodine, having previously noticed that in prescribing a combination of strychnia and iodine, there was a precipitate, the strychnia being thrown down.

Temperature of the Body in Health.—Dr. Sydney Ringer (*Popular Science Review*) states that the average maximum temperature of the day, in persons under 25 years of age, is 99°.1 Fahr.; of those over 40, 98°.8 Fahr. A diurnal variation of the temperature occurs, the highest point of which is maintained between the hours of 9 A.M. and 6 P.M. Between 11 P.M. and 1 A.M. the maximum depression is reached. It again rises about 3 A.M. and by 9 A.M. reaches very nearly its highest point. In persons under 25, the diurnal variation, on an average, is 2°.2 Fahr.; in persons between 40 and 50 it is very small, the average being not greater than 0°.87 Fahr.

Origin of Epithelial Cancer.—M. Leontowitsch (*Lancet*), in a paper on the "Origin of Epithelial Cancer," gives the following results with reference to the origin of epithelial cancer, or cancroid. Out of 38 cases examined, 20 originated from connective tissue or its corresponding structures. It proceeded from the epithelial structure in twelve cases, and in 6 cases its origin could not be accurately ascertained. He believes that cancroid can be developed from all the varieties of the connective tissue, as well as of the epithelium.

Billroth and Thiersch believe that the epithelial elements play the most important part.

Neurotic Cutaneous Diseases.—The practical little essay by Dr. Purdon, a Belfast dermatologist, on "Neurotic Cutaneous Diseases," will prove a valuable addition to this comparatively unexplored field of medical literature. It is gotten up in a neat and pleasing style.

The Fashionable Watering-Places in Germany.—The most fashionable of all the watering-places of Germany is Teplitz, which is reached by rail from Dresden, in four hours. It contains about 3,000 inhabitants; is 650 feet above the sea level. The mineral waters were discovered in the year 762 A.D.

Hemlock a Valuable Agent.—Chorea, or St. Vitus's Dance, which has baffled every effort of the physician, is often relieved by the judicial administration of the juice of conium.—Practitioner.

Mortality from Renal Affections in Different Climates.—Comparing London and Paris with Bombay and Genoa, the proportion of deaths from renal dis-

ease to the total number of deaths in London, is 1 in 49, and in Paris, 1 in 266; whereas, the proportion in Bombay is 1 in 2,800, and in Genoa, 0 in 4,303. At the Milan Hospital, dropsy with diseased kidneys occurred, on an average, once in 2,807 admissions; whereas, in St. Mary's Hospital, London, the proportion was 1 in 31, that is, the frequency in the latter is one hundred times greater than in the former.—*N. Y. Medical Journal.*

INCREASE OF POPULATION IN DIFFERENT COUNTRIES.—In an interesting paper by Mr. Black, on the census of France, of 1861, in the *Temps* for 21st January, 1862, that author has shown that the increase in France is considerably less than that in the five other great powers. In France the increase in 35 years (1826–61) was only 12 per cent. In Russia the population has doubled itself in 50 years. In England it has increased 119 per cent.; in Scotland, 90 per cent. in the same period. In Prussia, between 1816 and 1858, 72 per cent. In Austria, between 1818 and 1857, 27 per cent., or respectively per annum, England, 2.3; Scotland, 1.8; Prussia, 1.7; Austria, .8; France, .4; and Russia, 20. The increase in each of these countries in 100,000 per annum was as follows:—England, 1,625; Russia, 1,410; Austria, 1,092; Prussia, 1,440; United Kingdom, 1,125; France, 340. The births in France from 1855 to 1859 were 987, 969, or 27.5 to 1,000 population. In England it was 34; Austria, 36; Prussia, 38, Russia, 40.

With regard to fecundity of marriages: 250 marriages in Prussia; 223 in Russia and Austria; 237 in Great Britain; and 285 in France, severally produce 100 children. Whereas deaths are per 1,000; in Russia, 33; Austria, 32; Prussia, 29; France, 28; and Great Britain, 23. The increase thus in France of population by excess of births over deaths, is 3 times less than in Austria; 5 times less than in Russia; 6 than in Prussia; and 8 than in Great Britian; which he puts down to preventive practices, viz. use of sponges or ablutions immediately after connexion.—*London Medical Mirror.*

HOMŒOPATHY IN PARIS.—The Homœopathic Society of France have decided that a hospital shall be founded in Paris in which the practice of homœopathy shall have free scope. A public subscription is to defray the expenses.

FIBROUS TUMORS IN PREGNANCY.—M. Blot believes that fibrous tumors increase in size during pregnancy, and diminish after labor.

EPILEPSY INDUCED BY SECTION OF THE SCIATIC NERVE.—Prof. Brown-Séquard alluded recently, in the Paris Academy, to the fact that section of the sciatic nerve induces epilepsy when the face is irritated at a certain point.

EXTRAORDINARY OPERATION.—Dr. Bœhm, a celebrated German surgeon, has just performed the operation of separating two female children, five years of age, who were joined together in the same manner as the Siamese twins. The German papers state that the operation was attended with perfect success; but *one* of the patients seems to have died the same day. The survivor is in good health.

COMPLETE DESTRUCTION OF BOTH MEMBRANA TYMPANI; APPLICATION OF ARTIFICIAL DRUMS WITH GREAT BENEFIT.—J. Orne Green, M.D., Physician to the Department for Diseases of the Ear, Boston City Hospital (Boston *Medical and Surgical Journal*), relates the following case: A fine, healthy man, æt. 29, had scarlet fever, when 4 years old, and has had ever since a continuous, offensive otorrhœa on each side. On examination, the right membrana tympani is entirely destroyed: the hammer remains, very much drawn in, and just below it the mucous membrane of the tympanum is red, irregularly swollen, and in one spot a white mass of calcareous deposit is seen and felt on it; right Eustachian tube pervious. The left ear exhibits almost the same appearances, except that the membrane of the tympanum is perfectly smooth and of a light pink color; no remnants of the membrana tympani to be seen; by Valsalva's experiments there is a distinct perforation-whistle. The watch is heard one second in each ear, the voice about five minutes. Under the use of an iodine instillation the swelling was so much reduced in the right ear that he could blow air easily through it; the otorrhœa was diminished by the astringent, and finally checked by the use of talc.

Artificial drums were then applied to each ear in the same way as in the preceding case, and to his great gratification his hearing was greatly improved, so that he could easily carry on a conversation with a person twenty feet distant. He was taught to introduce them himself, and before he left for his home in the West could adjust them easily, and with great benefit to the hearing.

FEMALE PHYSICIANS.—It is stated that the objection to women practising medicine dates back to 1421, when a petition was presented to King Henry Fifth, that "no women use the practyse of fisyk, under payne of long emprisonement."

INMAN'S FORMULA FOR CASES OF PHTHISIS.—Thomas Inman, of Liverpool (*The Med. Mirror*), states that his favorite formula for cases of phthisis, or general debility, is this: "Keep the stomach for food, the rectum for physic, and the skin for oil." It is a homely saying, but not the less true on that account.

NEW CHEMICAL LABORATORY OF THE UNIVERSITY OF LEIPSIC.—This new building is the largest and most perfect Chemical Laboratory in all Germany. It was opened for the reception of students in November, 1868. The building occupies some 7280 square yards, and is in the form of a large E. Over 800 gas jets will be used for chemical and illuminating purposes. There are 6 regular working rooms, abundantly provided with apparatus, and capable of accommodating over 100 practical students. The auditorium will seat about 200 students. Dr. Herman Kolbe is the resident Professor of Chemistry.

NIEMEYER ON PNEUMONIA.—This celebrated thinker has adduced the following formula: "Pneumonia, *per se*, requires as little therapeutic interference as erysipelas, variola, measles, or any other of the diseases which have a definite period or course, when they attack individuals previously in good health, and are not complicated and are of moderate intensity."

FRIGHT A COMMON CAUSE OF MENTAL DISORDER.—Esquirol speaks of it as a common cause, and states, that it produced 46 out of 1218 admitted at the Charenton and Salpêtrière hospitals under his charge. Seventeen cases from fright, among 3300 patients received in 15 years in the Taunton Hospital, are reported by Dr. Choate. The Worcester Hospital reports 45 in 36 years. 21 among 4898 patients are reported at Hartford. The State Hospital of Utica, N. Y., reports 47 cases of fright in 19 years of its operations. The English and Scotch hospital reports present a similar history. Females are somewhat more susceptible of mental disturbance from this sudden disturbing cause than males, yet the records of lunatic hospitals do not present a very great difference between the sexes in this respect.—*Boston Med. and Surg. Jour.*

CURE FOR TOOTHACHE.—According to the *Lancet*, one drachm of collodion added to two drachms of Calvert's carbolic acid cures toothache. A small portion of this gelatinous mass inserted in the cavity of the aching tooth, gives immediate relief.

ON CHRONIC BRONCHITIS, CONNECTED WITH GOUT, EMPHYSEMA, AND DISEASES OF THE HEART.—E. Headlam Greenhow, M.D., in his "Clinical Lectures delivered at the Middlesex Hospital," says: I am satisfied, from long personal experience, that the proportion of cases of bronchitis arising from external causes is decidedly smaller, and that from gouty and other internal conditions of the system is decidedly larger, among the higher classes of patients whom we meet with in private practice, than it is among the working classes who form the bulk of our hospital patients.

He believes that the true relation between chronic bronchitis on the one hand, and the gout, psoriasis, albuminuria, and gravel, on the other, is that they all depend upon a common humoral dyscrasia, which in one case produces gout, in another gravel, in a third psoriasis, or, as in the cases already considered by him, bronchitis coexisting or alternating with one or more of these other ailments. An analysis of 96 cases—41 females, and 55 males—has been made by him, ⅔ of them being between the ages of twenty and fifty, all cases of strictly senile bronchitis.

Dr. G. finds that a combination of the tincture of chloride of iron and digitalis is beneficial in incompetence of the mitral valve, causing the pulse to beat more regularly, and rendering the patient more comfortable.

VARIETIES OF FOOD.—Dr. Letheby (*The Druggists' Circular and Chemical Gazette*), in the "Cantor Lectures," delivered before the Society of Arts in London, speaks as follows in regard to the several varieties of food:

Maize, or *Indian Corn*, is one of the most extensively used grains in the world. Since the famine in Ireland, it has there also become a common article of diet, especially when potatoes are dear. The grain is said to cause disease when eaten for a long time, and without other meal—the symptoms being a scaly eruption upon the hands, great prostration of the vital powers, and death after a year or so, with extreme emaciation. These effects have been often observed among the peasants of Italy, who use the meal as their chief food.

The nutritive power of Indian meal is very high, and considering its price, it is almost, if not altogether, the cheapest food for the poor. A week's diet for an adult will only cost 10½*d*, and excepting split peas, which are of doubtful digestibility, there is nothing approaching it for economy.

Rice is the principal food for the eastern and southern nations, and gives nourishment to one hundred millions of persons. The proportion of gluten in it is only about 6.3 per cent., and it rarely exceeds 7. It is one of the least nitrogenous of all the cereals, and cannot be made into bread unless it is mixed with wheaten-flour, as is the custom in Paris in making the best white bread. The proportion of nitrogenous to carbonaceous matter is as 1 to 12.7, or twice the amount in wheat. It is, therefore, a good adjunct to highly plastic foods, as ox-liver, poultry, veal, and fish, especially in the savory form of curry. In no country is it eaten alone.

The *potato*, a *succulent vegetable food*, imported from America into England, in the 17th century, by Sir Walter Raleigh, has gradually become an almost universal article of diet. Its nutritive value is not great, as it contains only about 25 per cent. of solid matter, and of this hardly 2.1 is nitrogenous. Potatoes are also deficient in fat, and require admixture with nourishing materials. They are best cooked in their skins, for the waste is then only about 3 per cent., or half an ounce in a pound; whereas, if they are peeled first, it is not less than 14 per cent. The mealy varieties are more digestible than the close and waxy; in fact, when they are new, and late in the season, they are best cooked by stewing. All succulent vegetables are endowed with anti-scorbutic powers, but potatoes are especially renowned for this property. The late Dr. Baly remarked, that wherever potatoes were used scurvy was unknown. Turnips, parsnips, carrots, artichokes, onions, caul flower, cabbages, and greens, have among themselves nearly the same nutritive value, but they are all much less nutritious than the potato; in fact, they do not contain more than from 9 to 17 per cent. of solid matter, and of this only about 1.2 is nitrogenous. They are chiefly valuable for their anti-scorbutic properties, and for their quality of flavoring insipid food and diluting strong ones.

Banana and *bread-fruit* are also valuable esculent foods, and are largely used in the tropics. The former contains about 27 per cent. of solid matter, of nearly the same nutritive value as rice. About 6½ lbs. of the fresh fruit, or 2 lbs. of the dry meal, with a quarter of a pound of salt meat or fish, is a common allowance for a laborer.

Ripe fruits, as apples, pears, peaches, pine-apples, oranges, &c., are not of much nutritive value, for they rarely contain above 13 per cent. of solid matter, and this is of no more value than so much rice; but they have agreeable flavors, and serve the purpose of anti-scorbutic drinks.

BLISTERING IN ACUTE RHEUMATISM.—In St. Vincent's Hospital, London, Dr. Mapother recently exhibited to his class several cases of acute rheumatism which he had treated mainly by means of the blistering plan. He advocates this method of treatment very strongly, and has found it to afford much more favorable results than any other which he has tried. He stated that in some cases the patients expressed themselves relieved of the acute pain before there is time for any serum to be poured out; and this fact, if true, would, he thinks, argue that the blisters act as counter-irritants to the diseased structures, and produce relief in that way.

OVARIOTOMY IN ITALY.—The Italian surgeons reckon a second successful case of ovariotomy. The operation was performed on March 4th, at Lugo, by Dr. Domenico Peruzzi. A large number of medical men were in attendance. The tumor weighed 2500 grammes. The patient, a woman of forty-four, recovered so rapidly that on March 25th she was able to get up and walk about the room.

L'Imparziale, of the 1st of June, 1869, says that the thirteenth operation was performed by Professor Vanzetti, of Verona, on May 2nd of the current year. The adhesions were extensive, and the patient died three days after the operation, of severe peritonitis.

SOME OF THE CAUSES OF UNPRODUCTIVE MARRIAGES.—C. H. F. Routh, M.D., Senior Physician to the Samaritan Free Hospital for Women and Children (*The Med. Mirror*), in an able and interesting paper "On Some of the Causes of Unproductive Marriages," considers some of the points which vital statistics have made out.

1*st. Circumstances which tend to diminish the number of children.* (*a*) Power of producing children is less among the upper classes. (*b*) It diminishes with wealth. (*c*) It diminishes with numbers of persons

engaged in agriculture. (*d*) It is diminished by polygamy. (*e*) By vitiated food. (*f*) By preventive habits. (*g*) By consanguinity.

2*nd. Circumstances which tend to increase the number of children.* (*a*) Peculiarities of climate and food. The effect of varieties of food or plants in increasing the productive power of a nation has been recognized for centuries. *Tea* has been believed a powerful excitant as well as cantharides, and in this way the large population of China has been explained. *Fish*, and *shell fish* especially rich in phosphorus, have been popularly admitted as agents to increase the sexual power. There can be no doubt that the semen of a man is the most essentially phosphorous compound secretion in the body. The brain is perhaps the only part of the organic body in animals to be compared with it. He quotes statistics, which, so far as they go, justify the conclusion that maritime parts are more prolific than inland parts, and probably because the food is more generally *fishy*.

(*b*). New countries. A population immigrating is more prolific in the new country than in the old. (*c*). Early age at marriage tends to increase the number of children.

THE PRINCIPAL DISEASES BENEFITED BY THE BATHS AT TEPLITZ.—Dr. M'Call Anderson, Professor in Anderson's University, Glasgow (*Glasgow Med. Journal*), after a visit to some of the German spas, states that the following are the principal diseases which are benefited by a course of the baths at Teplitz:—1st. Gout and rheumatism and other joint affections in the chronic stage. The baths are specially directed towards the removal of inflammatory exudations of joints. To this end the douche and hand baths are particularly valuable. 2d. Painful nerve affections, especially those occurring in connection with rheumatism, are often moderated or removed. 3d. Wounds and ulcers and the like are frequently cured by the baths, especially those which are associated with well marked exudations, while they favor the separation and removal of bony sequestra and foreign bodies. 4th. Certain forms of paralysis are often moderated or removed by them, especially the rheumatic forms and those which arise from the pressure of exudations upon the nerves, the result of previous inflammatory attacks. The baths are contra-indicated in all cases of acute diseases, and they must be used with caution in persons of plethoric habit, or who are liable to apoplexy or congestion. As a rule, the cooler baths should be taken at first, and the warm ones substituted at a later period of the course, if the former agree, and are inoperative. The season at Teplitz is from June to August inclusive, the height of the season being in August, at which time a higher price is charged for baths. The climate of Teplitz is mild, and the vicinity interesting and beautiful.

USE OF COLLODION IN ENTROPIUM.—S. B. Robins, M.D., of Lawrenceburg, Indiana (*the Western Jour. of Medicine*), mentions collodion as a valuable agent in the treatment of perverted conditions of the eyelids. He briefly gives his experience in cases of entropium. Apply commercial collodion with a brush, several times per day, to the outer surface of the inverted lid, and it effects, by its mechanical power to contract the surface upon which it is applied, an immediate contraction of its outer surface, and consequent bringing of the ciliary margin to its natural position. If one application is insufficient to bring the cilia in position, it can be repeated until the desired position is attained, where it may be held for any length of time, by repeating the application. And this gained, all is gained that is offered by any other mode of treatment with which he is conversant, be it either of the many operations proposed, or the application of compress and bandages, adhesive straps or sutures. It can be applied without any inconvenience; produces no pain, but a warm pungent sensation; it is very cleanly and not unsightly, and the tears that prevent the thorough use of adhesive straps, and excoriate the skin under the compresses, have no effect upon the surface covered with collodion; the lid loses its reddened, swollen look, and assumes a more healthy appearance. He has used it with equally good effect in ptosis, especially in cases occurring in aged persons, and has been led to believe that it exerts some influence in restoring to healthy action the levator palpebræ muscle when rendered inactive by palsy of the third nerve.

COMPARATIVE MORTALITY IN ARMIES FROM WOUNDS AND DISEASE.—Dr. Edward S. Dunster contributes some valuable statistics on "The Comparative Mortality in Armies from Wounds and Disease," in the U. S. Sanitary Commission Memoirs, as follows: "Among the English, during the Crimean war, the mortality from disease was to that of wounds as 3.52 to 1; the mortality among the French showed almost exactly the same ratio. During the Mexican war there were seven times as many deaths from disease as from wounds. During the recent war, the mortality in our army from disease was to that from wounds as 1.30 : 1, a ratio which is gratifying. It has been found that the officers are much more apt to die from wounds, and less likely to die from disease, than the men; in the late war, one officer was killed or died of his wounds to about every eighteen men, while from disease there was only one death among the officers to every ninety deaths among the enlisted men. Different arms of the service suffered differently. In the cavalry, there were 26,405 deaths from disease, and 11,798 from wounds, or a proportion of 2.23 to 1. In the artillery, there were 12,832 deaths from disease, and 2,122 from wounds, giving a proportion of 6 to 1. In the infantry, there were 154,069 deaths from disease, and 81,169 from wounds, showing a proportion of a little less than 2 to 1. The colored troops suffered greatly from disease, the proportion being 8 to 1, instead of 2 to 1, as in the army, taken as a whole.

AMERICAN JOURNAL OF SYPHILOGRAPHY AND DERMATOLOGY.—Dr. M. H. Henry proposes to edit a quarterly journal with the above title. Its first number is promised early in the fall.

UNIVERSITY OF NASHVILLE.—The number of graduates last spring was seventy-one instead of seventeen, as stated in our previous issue.

New Publications.

A TEXT BOOK OF PRACTICAL MEDICINE, with particular reference to Physiology and Pathological Anatomy. By FELIX VON NIEMEYER, Professor of Pathology and Therapeutics, etc. Translated from the Seventh German Edition By GEORGE H. HUMPHREYS, M.D., and CHARLES E. HUCKLEY, M.D. 2 vols. 8vo. New York: D. Appleton & Company. 1869.

ELECTRICITY IN ITS RELATION TO PRACTICAL MEDICINE. By Dr. MORITZ MEYER, Royal Counsellor of Health, etc. Translated from three German Editions with Notes and Additions. By WILLIAM A. HAMMOND, M.D. New York: D. Appleton & Co.

THE MEMBRANA TYMPANI IN HEALTH AND DISEASE. Illustrated with 26 Chromo-Lithographs, etc. By ADAM POLITZER. Translated by A. MALIHEWSEN, M.D., and H. G. NEWTON, M.D., Assistant Surgeons of the Brooklyn Eye and Ear Hospital. New York: W. Wood & Co. 1869.

Original Communications.

NOTES FROM JAPAN.

By H. ERNEST SCHMID, M.D.

WHITE PLAINS, N. Y.

The Japanese, like all Eastern people, who live mostly on rice, are much troubled with flatulence. In fact, many forms of dyspepsia are of frequent occurrence amongst them. It could scarcely be otherwise, considering, as already mentioned, the extensive consumption of confectioneries, and the universal love for strong drink. I have heard from respectable, reliable Japanese themselves, that many people in Nagasaki consume nightly from six to eight pints of saki. It is no wonder then, that, after a daily exposure of their unprotected heads to as fiery a sun as ever heats up the tropics, and after nightly excesses in drinking, and in sexual pleasures to the utmost, so many cases should come under notice of apoplexy and paralysis, of valvular lesions of the heart, and of renal and hepatic disorders, with their attendant dropsical affections. I had to perform paracentesis abdominis many times during my residence in Japan, for ascites appeared more frequently even than general dropsy amongst my class of patients. Although this tapping is in most cases only a palliative measure, I was fortunate enough in one single instance to accomplish a perfect and permanent cure by the operation. This occurred in the person of a young woman, 28 years old, married and mother of three children. She had consulted, prior to her coming to my clinic, the learned physician, Dr. Baron von Siebold, well known as the most prominent of medical men attached to the Dutch factory on Desima, during the time that nation had sole monopoly of the Japanese trade. He had decided, that nothing short of paracentesis abdominis would be of any benefit to her. But she was unwilling to submit to the operation, and came to me to see if nothing else besides the dreaded surgical means could be employed in her behalf.

The woman was, like all Japanese of her sex, of small stature, and of that early faded appearance which is the almost constant result of their mode of life. She had had, as I was justified to conclude from her answers to my minute inquiries, about 18 months previously, an attack of hepatitis, which had left her with a dull dragging pain in the region of the liver, but which pain was, when I first saw her, much obscured by the general feeling of the distension and weight of the accumulation within her abdomen. For the last twelve months the upper part of her body and her limbs became very thin, as is usual in ascites.

There was now general lassitude, dry skin, dizziness and headache, much thirst, rather darkly furred tongue, loss of appetite, and obstinate constipation. Her spirits were greatly depressed. No jaundice was present—her pulse natural—her menses regular though scanty, her urine less than natural and loaded with bile, it turning green on addition of nitric acid. There was *no* anasarca—no evidence of disease of the kidneys—no cardiac complication. Hepatic derangement was evident, so that I at once examined her liver. It was considerably enlarged, although to ascertain the extent of the hypertrophy was difficult, on account of the great distension of the abdominal cavity. I greatly inclined to Dr. von Siebold's views of the case, expecting little from general treatment, without paracentesis, because the national lymphatic temperament made me fear a failure in any attempt to excite the absorbent power of the peritoneum. Yet since she wished it I put her at first on repeated moderate doses of soda-salts. It proving useless, as did likewise the employment of calomel, I gave her elaterium, and kept her abdomen well compressed. This acted at last powerfully, and lessened her circumference markedly in a short time. But it debilitated her likewise very much. At this time, she received news of the impending death of a member of her family, which induced her to beg me to dismiss her, that she might go back to her home, distant some 200 miles, from whence she would return to me as soon as her family affairs would permit. This was in the winter, and I bade her farewell, expecting never to see her again. But to my surprise, in the early spring-time she came back true to her promise. She was now more miserable than ever, the distension of her abdomen having assumed an enormous extent. She was ready for the operation, preferring it to a repetition of *drastic purges*, which had prostrated her so very much. I tapped her, as is mostly done, half way between the symphysis pubis and umbilicus, and drew off under continuously tightening compression of the abdomen eleven gallons of a somewhat viscid, slightly, but very slightly, yellowish serum. She evinced great cheerfulness as her size more and more diminished. I put large compresses over her bowels and bandaged her very tightly. Although my experience had shown me the rare danger of supervening inflammation in these Eastern people, I yet gave her a grain of opium, which was repeated a few times during the first three days. No untoward symptoms set in. On the third day a powder of calomel and rhubarb acted surprisingly well. I then put her on small doses of the bichloride of mercury in fluid extract of taraxacum and comp. tinct. of gentian; had an ointment of the iodide of mercury rubbed into the skin of the hepatic region; and kept her bowels well open with the compound rhubarb pill. She was taken daily in an open boat on the waters of the beautiful bay of Nagasaki, and recovered so fast, that when she came to my house, up a flight of two hundred steps, some eight weeks after the operation, to bid me farewell, before returning to her native princedom, I scarcely recognized her, who had regained almost entirely the beautifully moulded round limbs, which constitute the great charm in the figure of the Japanese maiden. For a year afterwards I heard from her every two months, and the last report was still of her continuously good health.

To give an idea of the financial prospects of Japanese doctors, I mention here, that on this dropsical patient's first return to her country, when she had been under my treatment for several months, the grateful husband left on my study-table five itchibues, silver coins, three of which were given for a Mexican dollar. This was considered an extraordinary fee. Of course I returned it to him.

In the treatment of Bright's disease, I employed largely the sulphite of lime, and with very satisfactory results. It invariably increased the amount of urine, so that it gave often at least temporary relief in removing the oppressing dropsical effusions. In one very far advanced case, that of a young man, it produced a complete cure, and in a woman 43 years of age it procured apparent recovery for about four months, when the disease returned in new force and killed her very rapidly. I was induced to prescribe it as a catalytic, looking upon the state of the blood in albuminuria as one needing a remedy of catalytic power. Whether it acts as such, or simply as a diuretic, I do not know.

Venereal diseases play a great rôle in Japan. The licentiousness of that country is unsurpassed by any other. The houses of prostitution, protected by

government, flourish. Their inmates are not the pariahs of our cities, but frequent as visitors the most respectable houses. When they reach the age of twenty-five the brothel-keepers can no longer retain them, but must dismiss them from their houses. They have then most probably accumulated a small sum of money and are ready to enter the matrimonial estate. And they find husbands.

It is evident how easily, in such state of things, venereal diseases are widely disseminated. Syphilis, almost wholly unchecked in its primary stage, saturates the system so thoroughly, that its ravages in the tertiary forms are beyond all description. And it also gives taint to so many general diseases, that I was forced to this position, that whenever a case came into my hands defying all rational treatment, I would feel justifiable to give it *specific* medication, and in 99 cases out of 100 with success. I can safely say that amongst a number of about 100 patients that came daily to my house, there were generally some twenty syphilitic cases of all shades.

Diseases of the eyes are also very common. The causes we find again in the food used, and in that they protect their eyes very little from the direct rays of the sun; nay worse, that they actually deprive themselves of their limited natural protection by shaving off the eyebrows. One of Dr. von Siebold's native pupils invented an instrument for steadying the eyeball during the operation for cataract. It was in the shape of a pair of spectacles, having in the place of the glasses two half spheres, which fitted accurately and tightly over the globe of the eye, but had cut out of them a round piece, corresponding to a little more than the size of the cornea. It answered a very good purpose in operations per cornea.

Two terrible cases of extensive burns came into my hands during my practice in Nagasaki. The first in a common laborer who was engaged in boiling pitch in a large cauldron, to be used in the caulking of a schooner. By some mishap the huge vessel was upset and the boiling pitch ran over the top of the head, part of the right side of the face, right arm, right side of the body, right thigh, and over a part of the scrotum and left thigh, and over portions of both legs. By placing by the bedside of the sufferer nurses who by night and day kept the burns covered with an ointment made of linseed oil and carbonate of lead, spread over in its turn with a layer of oakum, and by controlling the nervous system and preventing trouble in the duodenum with the free use of opiates, recovery took place very rapidly and with a very small amount of suppuration.

The same happy result was gained in the second case, where 75 pounds of powder had exploded while lying right before the chief of artillery of the learned Prince of Shisen. This officer was seated on the ground by the powder, with which he was about to make some experiments. The accident happened at the capital of the province of Shisen, a territory never yet trodden on by foreigner's feet. The victim of the disaster was a great favorite with his princely master, hence runners were despatched at once to me in Nagasaki, to ask my assistance for the sufferer, the story of the extraordinary recovery of the just mentioned case having spread abroad into the provinces. I hoped and fervently wished that this might be made the means of my visiting the capital of the great Shisen, and therefore stated that it was decidedly necessary that I should see the patient. But though the Prince prized him above all others, and would spend treasures in his recovery, he nevertheless replied at once, that if I could not prescribe for him where I was, the man would have to live or die without my assistance. The law and custom forbade my going to him—that was enough to stop all love, and friendship, and princely favor. Of course, when I saw the hopelessness of my darling desire, I came to terms, that is I prepared a large jar of the above lead-ointment, and sent it off by runners stationed at three-mile distances from each other. Recovery also took place, but with the almost entire loss of eyesight, contraction of right knee-joint, and of the fingers of the left hand and two of the right. He visited me afterwards, so that I could trace the extent of his burns by the scars.

Variola was not known in Japan up to the year 736. At that time a man from Chikusen was shipwrecked on the coast of Tartary, and, in spite of seemingly certain destruction, reached terra firma in safety. There he remained but a short time, soon finding a vessel that would take him back to his own country. But he had stayed long enough to carry with him a dread disease, variola, the seeds of which lay dormant in his system until he reached home, when he fell sick with it and became a centre of contagion to all around him. It spread from him over the island, and finally became a terror to the whole empire.

The priests of Shintoo, which was the oldest established religion, used it as a powerful weapon to fight the entrance into Japan of a new faith, that of Buddha. They proclaimed that this plague, variola, had been sent upon the people by the Gods, because all were leaving their old religion to embrace this new doctrine.

It is a fact, carrying with itself golden hopes for the success of Christian missions amongst that nation, that not even the dread of so terrible a disease could stop the progress of Buddhism, a faith better than any up to that time embraced by the Japanese. They were ever a very religious people, and in all the changes they made in their forms of worship, never left an old creed except to adopt a better one. Improvement marked every revolution in their devotional history. So when variola spread they made Buddhism spread but the faster, and only endeavored to limit the ravages of the loathsome disorder by isolating it. After a time they sent all new cases into the mountains, there to be nursed by the convalescents. Curious enough, in the year 1862, there was still an island, distant from Nagasaki some 90 miles, where never yet a case of variola had occurred.

Vaccination has been practised in Japan for the last 30 years. It was introduced by the Dutch. The place selected by the natives for vaccinating is the inside of either nostril.

Another, and of course still more dreaded epidemic is of very recent date in that empire—I mean that of the Asiatic cholera. It made its very first appearance in Japan in 1858, reappearing in the following year. In 1858 the rainy season had been one of unusual length. After it the sun came from behind the clouds with so fierce a heat that it fairly boiled the wet, spongy earth-crust, and set free its poisonous constituents of all kinds. At that time broke out the cholera. Its victims fell in countless numbers. A native physician, a man of uncommon intelligence, whom I had trained to be my assistant, treated this new visitor altogether with emetics. He saw and prescribed for some 600 cases, and, so he told me, lost only 40 of that large number. But when it reappeared in 1859, the emetic plan did not answer in a single case, and he had to resort to promiscuous remedies, his success being as nothing in comparison with that of the preceding season.

But I have not yet mentioned that which is really par excellence the disease of Nagasaki. It is the typhoid fever. Endemic in Nagasaki—one can safely say of it, that it destroys yearly more human lives in that city than any other single malady. For though occur-

ring so commonly it is, notwithstanding, less comprehended and more maltreated by native doctors of medicine than any other sickness. And yet I have never met before or afterwards in any other place a form of it so amenable to treatment as that of Nagasaki. As a specimen of the native plan of treating it I would only mention that I have seen native physicians hail the occurrence of hæmorrhage from the bowels as a good sign, and give powerful cathartics at that time, to aid the system in relieving itself of what they called these poisonous excretions.

The knowledge of medicine the Japanese possess, comes to them from the medical works of their Chinese neighbors. And small is the amount of sensible ideas that can be found amongst the mountains of absurdities contained in Chinese writings of that kind. However, the Japanese have taken many useful lessons from observing the practice of the Dutch physicians attached during 300 years to the Dutch factory on Desima. Still more have they learned from translations of Dutch medical books into their own language. Of course almost all the scraps of European medical knowledge thus obtained are with them of an empirical character—of the routine kind. And even this, little as it is, has found its way only to the better class of physicians. I may be allowed to state here a somewhat foreign matter, but at a time when female doctors make so much furore, it will be of sufficient interest. I mentioned above the name of Dr. Siebold, the Japan savan. He had a daughter by a Japanese woman. This daughter, growing up beneath the roof of her European father, became very fond of the parent's profession, and induced the doctor to instruct her frequently in medical topics. She was an apt scholar, who remembered well what she read, and still better what she saw, so that in after years she became greatly esteemed by her countrymen for her medical lore, and grew to be, to all intents and purposes, the first and only female doctor of medicine in Nagasaki.

Amongst Japanese physicians a great many grades of standing and respectability exist. And it is evident that the more one of them has gathered in of European medical science, the higher he ranks with the people and with his own confrères. It is in accordance with this statement, that the highest and most respected class of medicine-men is the one comprising all such as have gained knowledge by observing intelligently in person the treatment employed by foreign physicians, or who have been taught through foreign books, or who have actually been pupils of foreigners. Some few of these have even dissected a very little.

I instructed a class of sixteen native doctors, the best of whom was the above-mentioned successful manager of so many cholera-cases. He is now the largest practitioner in Nagasaki, his known relations with me having procured him the finest reputation in that community. For it was easy to become Cæsar amongst my heathen-friends, where there was no rival beyond a single Dutch naval surgeon. And in fact we did not oppose each other, but had each our separate empire—and were both of us *great* men.

After the highest grade of Doctors are met all kinds of ignorant specialists, or I should rather say, every variety of such as profess to cure all human ills by one treatment. Such are, for instance, the moxa-men and the acupuncture-men.

The surgeons form also a second-rate class. They confine themselves to opening of abscesses and setting of fractured bones. They make their splints of the elastic bamboo, a most excellent material for such purpose. But they do not give the necessary length to them, and therefore procure in many instances only ligamentous union of the fractured ends or no union at all.

But the lowest and most disgusting in the scale of medical attainments are the obstetricians. These go about at night with their lantern-carriers, who cry out upon the streets: "Here comes the celebrated obstetrician, Skeshiro-sama," or whatever his name might be, "all ye that want him come out of your houses and avail yourselves of his inestimable services!" This class is held in low esteem even by the people themselves. They deliver their patients in the knee and elbow position, as it is called by the Germans, squatting behind the woman to receive the child.

In conclusion, I would add only this, that in Japan mothers nurse their children until their milk dries up. And I have often seen little ones of three, four, and five years of age step up to their mother and take a drink from her breast. The fact that the use of cow's milk or that of any other of the lower animals, is unknown in Japan, has a great deal to do with this custom. But it is a bad custom, for it is certainly one of the several causes that make Japanese women fade so early. And this early decay strikes the foreign visitor all the more, since the Japanese women have as free intercourse with general society as their European sisters have. This is only one more of the many points on which rest the speculations of those who prophesy for Japan a great future, a future that will see them the Anglo-Saxons of the Eastern nations.

THE ORDEAL BEAN OF CALABAR.

READ AT THE RECENT ANNUAL MEETING OF THE MEDICAL ASSOCIATION OF CENTRAL NEW YORK, AT ROCHESTER.

By WM. T. PLANT, M.D.,

OF SYRACUSE, N. Y.

The custom of deciding disputed questions by ordeal is of great antiquity, and has prevailed among many nations. Of its practice by divine authority among the Jews, we have proof in the 5th chapter of Numbers, where Moses receives commandment from the Lord that if a woman be suspected by her husband of adultery, she shall be brought before the priest and made to drink of "the bitter water that causeth the curse." According to its effect upon her she was to be considered pure or defiled. If defiled, she was to be made a curse among her people. If pure, she was declared free, and her honor was untarnished. During the dark ages this kind of trial was frequent in all parts of Europe. It was practised in various ways—by fire, water, and the wager of battle. There was also the ordeal of the bier, where the suspected murderer was required to touch the body of the victim. If blood flowed from the wounds he was considered guilty. Under such a judicial system, convictions for murder must have been infrequent. In the practice of ordeal by fire, the test of innocence was the ability to carry, bare-handed, bars of heated metal, or to walk with naked feet over red-hot iron without injury.

The employment of ordeal by poison seems to be still prevalent in Africa, particularly along the Gold Coast. The inhabitants of this region are polygamists, and, according to Dr. Livingstone, "when a man suspects that any of his wives have bewitched him, he sends for the witch-doctor." All the wives remain fasting until this specialist has made a drink from the plant which happens to be in use in that locality as an ordeal. Each one drinks of it, holding her hand to heaven in attestation of her innocence. The charges

are regarded as proved or not according to the manner in which the poison acts. Those who vomit it are usually considered innocent, while those whom it purges or kills are pronounced guilty.

Among the different tribes there are varieties of procedure. Sometimes the accused is favored with a trial by proxy, the medicine being given to some animal, the verdict rendered being in accordance with the effect produced.

Different agents are used as ordeals by different tribes. One of the chief poisons employed by the natives of the Gold Coast is known as the Ordeal Bean of Old Calabar. It was first brought to the notice of the profession in 1846, by Dr. Daniell, in a paper read before the Ethnological Society of Edinburgh. Specimens of the bean obtained from Africa and planted in Dr. Christison's garden, produced a perennial, creeping vine. In 1859, Dr. Balfour obtained the plant direct from Old Calabar, and gave a description of its botanical character to the Royal Society. Finding that it belonged to no genus yet described, a new one was created for it, and called "Physostigma Venenosum." By the natives it is called Esère. This plant, climbing over the trees that overhang the rivers, drops its fruit into the streams, from which the negroes gather the supplies that serve to them the purpose of judge and jury. The bean is of kidney form, an inch long, with a dark, shining integument, and a well-marked furrow running over its convex border. Within the shell is a hard, white kernel, destitute of much taste or flavor. The bean is the only part of the plant known to possess poisonous or medicinal qualities. In 1863, Dr. Fraser published an article containing a summary of what was known of it up to that time, with the results of experiments made by himself. Five and a half grains of the kernel, given to a rabbit, produced paralysis, contraction of the pupils, moderate catharsis, and death. No organic changes were found to explain the action of the poison. Dr. Christison swallowed twelve grains of the kernel, which in fifteen minutes produced giddiness, followed by great faintness and weakness, paleness of surface and irregularity of pulse. The intellect was not affected, and there was no pain or uneasiness except the feeling of prostration.

From about three drachms of the tincture taken in the course of an afternoon, I experienced slight giddiness and weakness, without pain or mental disturbance. These effects passed off in the course of the evening, but were followed by a moderate catharsis, which continued for two days.

When the peculiar effects of this agent on the natives of Calabar and on those who had made it the subject of careful experiment were made known to the profession, it was suggested that it might be made useful in treating some of our severest and most unmanageable diseases, and the results already attained are certainly such as to warrant a further trial of its powers. So far as ascertained, its leading physiological properties are only two, but these it possesses to a remarkable degree; they are contraction of the pupil and thorough relaxation of the voluntary muscles, without sensorial disturbance. Applied locally, its myotic effect is speedily induced, and the eye to which the application is made is alone affected. Nicotine and opium are greatly inferior in myotic power. It has been used to some extent to counteract the effect of atropine, and to increase the power of the accommodation of the eye to distances. For these purposes the alcoholic extract is diluted with glycerine or water, and applied by a camel's-hair brush to the lower conjunctiva. It is stated, however, to act temporarily as an irritant to the eye, and that it counteracts the effects of atropine on the eye but imperfectly.

To test its myotic power, I applied to the lower palpebral fold of one eye a watery solution of the extract. In fifteen minutes there was evident contraction of the pupil; in half an hour it had diminished to the size of a pin's head. In three hours the effect had nearly disappeared. The other eye was uninfluenced. The irritation spoken of as a common result, and an objection to it use, was, in my case, hardly noticed.

To ascertain the comparative action of the bean and belladonna, I applied to the conjunctiva of the left eye a solution of the extract of the bean, and to the right a like preparation of belladonna. Within fifteen minutes the action of each agent had begun to be manifest. In half an hour the pupil of the left eye was extremely small, and that of the right correspondingly large. At the end of an hour, when the difference between the pupils was most strongly marked, I applied the extract of the bean to the right eye to see if it would counteract the effect of the belladonna. In half an hour, no effect having been observed, the application was repeated. In a few minutes considerable contraction was apparent, but repeated applications were evidently required to overcome the dilatation produced by belladonna.

The latter agent was now applied to the eye in which the bean had been first used. In an hour the pupil had enlarged from a pin's head size to about half its possible circumference, and remained so throughout the afternoon.

I conclude from the experiment, that the bean, in order to neutralize fully the effect of belladonna on the eye, needs to be frequently and freely applied, and that it may be used in this way without much irritation of the organ or prejudice to the sight.

The second property of the Ordeal Nut, that of inducing muscular relaxation, suggests its use in several disorders of spasmodic character, as chorea, tetanus, hydrophobia, and poisoning by strychnia.

In 1864 it was successfully employed in the hospital at Prague, in a case of poisoning by belladonna. Its use was probably suggested by a knowledge of its powerful myotic action. It may be that, like opium, the antagonism extends to other properties, and that one is antidotal to the other.

In the two first-named affections, trial more or less complete has been made of it, with results which I will attempt to show by brief extracts from some of the reported cases.

In 1866, Dr. Ogle, of St. George's Hospital, gave the details of two cases of chorea treated by the tincture of the Ordeal Nut. The first was a woman, twenty years of age, who had not improved under ordinary treatment. He directed half a drachm of the tincture, three times a day, increasing ten drops at each dose. She very quickly improved in muscular steadiness, and in a few days was discharged free from chronic symptoms.

Dr. Ogle has published other cases successfully treated by this agent, and also Dr. George Harley, who was the first to employ it in this affection. This disease, however, has always shown itself so capricious in its amenability to remedies, that we shall hardly find one suited to all cases. The involuntary contractions, and the lack of co-ordination in the movements which characterize it, seem to show a heightened state of the reflex motor function of the cord. From the action of the Ordeal Nut in diminishing an abnormally excitable condition of the reflex centres as demonstrated on animals poisoned with strychnia, and on men suffering from opisthotonos, we believe it to be well adapted to the treatment of some cases of chorea, especially to those that have resisted the ordinary and less powerful measures.

But the most signal triumphs of the Ordeal Nut have been in the treatment of tetanus of traumatic origin. The singular unmanageableness and fatality of this affection give to any agent that has power to control the spasms and diminish the sufferings of our patients, more than usual interest and value. The usual experience of the profession is well given by Professor Gross. He says that, in the great majority of cases of traumatic tetanus, death occurs from the third to the fifth day; and if we occasionally meet with an instance of recovery, the circumstance is to be regarded only as an exception to a general law of mortality in this affection. In more than thirty years, he has seen but two cases where the patient escaped with life, and then only after a protracted and painful struggle. In suffering and fatality it takes rank next to hydrophobia, and any remedy capable of subduing it will be hailed as a God-send to the profession and the race. It may be that this remedy has been found in the Ordeal Bean of Calabar. It was noticed by the first experimenters with this article, that its action in sufficient doses is to paralyze the voluntary muscles,—the very muscles that are spasmodically contracted in tetanus, so that its trial for the relief of this disease naturally followed a knowledge of its physiological action. Professor Watson, of Glasgow; Dr. Thomas R. Fraser, of Edinburgh; the Surgeon of the Children's Hospital at Paris; Mr. Ashdown, and others in Europe; and in this country, Drs. Baslin and Curren, and Dr. A. J. Baxter, have all reported cases of traumatic tetanus successfully treated by this agent. Dr. Watson and Dr. Fraser, from their large fields, have each given several cases. So that, since 1864, when Dr. Lemaire first used it in a case of the idiopathic form, we have reported from different parts of the world fifteen or twenty cases, most of them of the severest character, in which the Ordeal Bean was used with the best results.

A girl, eleven years of age, came under Dr. Watson's care on the 12th of November, 1866. Three weeks before she had slightly injured her foot. Two weeks after the injury, lock-jaw appeared. On admission to hospital, the body was rigid, and opisthotonos extreme. Chloroform relieved this condition, but only while being administered. The opisthotonos was increased by touching any part of the surface, or by drinking cold water. For two days the disease increased in intensity under ordinary treatment, and then the use of the Bean was commenced. In a very short time the rigidity was relieved, and some power regained over the muscles. The next day, as the effects of the drug were found to be short-lived, one-eighth of a grain of the extract was given every half hour. In the evening, universal muscular relaxation and contraction of the pupil having been induced, the treatment was suspended for two and a half hours, by which time the pupil had again dilated and spasms were induced by rousing the patient. The extract was resumed, and continued for a day or two at short intervals, but seemed to lose its effect, as several severe fits of opisthotonos came on. At this juncture, the doctor thought to give the extract in half-grain doses, but by a mistake of the apothecary one grain was given every hour for eight hours. And by this fortunate error—for the case terminated in recovery—we have a rare chance to view its action on man in full doses, and an admirable proof of its power over this terrific disease. Nine grains of the extract had been taken in eight hours; the condition of the patient at the end of this time I give in Dr. Watson's words:—"Her eyes were widely opened, staring and glassy; the pupils were contracted to pin-points; the pulse was rapid and intermitting; there was a mucous rattle in the throat, and the breathing was jerky and fitful. She had no spasms, neither could they be induced. All the muscles were completely relaxed, excepting those of the back, which were still rigid. She either could not or would not move any of her limbs, or make voluntary efforts to swallow. Active measures were employed to rouse her from this state, and though her breathing soon became easier and the pulse fuller, and the pupils dilated, the extremities remained flaccid the greater part of the night." To allow her to rally from this overdose, no more bean was given for ten days. During this time she improved in strength and the spasms never returned with their former intensity, but the body and legs became so stiff that, the Professor says, "if one could have raised her by the foot, he could have held her straight out in any position." After the ten days' interval, the bean was resumed in the form of tincture, five minims every two hours for four days; then every six hours. She was soon quite well.

The next case was also traumatic, occurring in a boy. It was successfully treated by the bean alone, the effects of which, in relaxing the tetanically contracted muscles, are described as remarkable. The muscles of the back were the last to yield to its influence.

In the *Lancet* of August 10, 1867, Dr. Campbell, of Lincolnshire, records a trial of this agent in a severe case of tetanus occurring in a delicate girl of twelve years. Slightly wounded in the hand on New Year's day, symptoms of lock-jaw occurred two weeks after, but passed off to come on again more severely on the 1st of March. Continuing to get worse until the 13th, Dr. Campbell was called in consultation, and describes her as a most pitiable creature. The least noise brought on opisthotonos of so severe a nature, that she rested on the back of her head and heels. The muscles of the back were contracted in such a way as to cause Potts' curvature of the spine. The scapulæ were drawn backward so much as to fix the chest and render respiration difficult. In this state of suffering, the administration of the Bean was commenced, one-eighth grain of the extract every half hour. By the next day there had been no improvement, and the quantity was slightly increased. In thirty-six hours after beginning treatment, the pupils were contracted, the breathing easier, extremities relaxed, and opisthotonos gone. The Bean was suspended and brandy given. This was followed by the first natural and refreshing sleep since her illness, and this patient, like the others, made a good recovery.

Dr. Watson gives other cases in the *Lancet* of April, 1868. In one of these, that of a boy of nine years, with traumatic tetanus of a very severe type, treated for four weeks by the Bean alone, its ability to induce muscular relaxation and the certainty of the return of tetanic symptoms when it is given at too long intervals, are strikingly shown. For several days it was administered in minute doses, to see if the disease could not be conquered without inducing such extreme depression as had occurred in some previous cases. But though the spasms were lessened in force and frequency, they were not suspended until the eighth of a grain was given every hour. In this case, as in the others, there seems to have been a direct connection between the diminution of the dose and the recurrence of tetanic symptoms, while the increase of the drug and recovery appear to have the relation of cause and effect.

Some cases have been happily treated by the subcutaneous injection of the extract. Mr. Ashdown gives one where rigidity of the muscles was completely relieved in five minutes. This relief lasted for the greater part of two hours, when the injection was repeated.

Dr. Fraser advocates the plan of its subcutaneous use until the system is decidedly under its influence, and then, when swallowing has become less difficult, to

administer it by the mouth. In desperate cases, where immediate death by apnœa is threatened, the hypodermic method should alone be resorted to, since by that we obtain immediate effects.

So far as known, only one tetanic patient has been unsuccessfully treated by the Calabar Bean, and in that one the medicine seems to have had an unequal struggle with death, for the patient was moribund when first seen, and died in convulsions before a second dose could be given.

I am not aware that a like success in this disease can be claimed for any other agent. Recovery has sometimes taken place under other plans of treatment. Several have lately been reported where tobacco and nicotine were used; but the latter agent is more nauseating, and, if possible, more alarmingly depressing than the Bean, though in their chief physiological properties of muscular relaxation and contraction of the pupil they are nearly allied.

For the relief of some of the symptoms of hydrophobia,—for we can hardly hope to cure the disease after the utter failure of all the efforts hitherto made,—the hypodermic use of the extract of the ordeal nut may be found valuable.

Its effectiveness in diminishing the reflex activity of the cord has suggested its use in poisoning by strychnia. In order to test its value, Dr. Fraser administered this poison to animals, and found that he could subdue the spasms in a few moments by its use. I have seen no notice of its employment in man for this purpose, and, indeed, the unfortunate rapidity of these cases generally renders efforts at treatment nugatory; but with time to act, we should confidently expect prompt relief from the frightful spasms by the subcutaneous use of a solution of the extract.

ON THE

PATHOGENESIS AND TREATMENT OF STERILITY IN THE HUMAN FEMALE.

By WM. C. ROBERTS, M.D.,

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In May last, I read before the N. Y. Academy of Medicine a paper on the causes of sterility in either sex, based mainly upon physiological relations.

Subsequently, Dr. Kammerer read a paper on the pathological conditions causing sterility, based upon a review of 408 cases, 201 of which had occurred in his own, and 207 in clinical practice (*Trans. N. Y. Ac. of Med.*, vol. 3, p. 7). These cases, which embraced the numerous descents, deviations, and diseases to which the uterus and its appendages are liable, were treated with more or less success, according to the usual methods; the proportion of success, so far as the removal of the sterility was concerned, being about one-third of the cases treated. One case in particular, however, deserves to be mentioned (No. 12); that of a woman whose inner uterine orifice was dilated at one session just after menstruation, and who conceived, after a barrenness of four years, immediately after; whether *propter hoc*, cannot perhaps be exactly determined. The physiological causes of sterility are not alluded to in Dr. K.'s paper, unless indeed the dilatations of the uterine orifices were intended to allow of an easier admission of the spermatozoa to the cavity of the uterus; and the intra-uterine injections employed to remove the noxiousness of the secretions.

In the paper which I read before the Academy, I showed:

1. That the generative apparatus of both sexes must be in a healthy condition. In the male, the penis must be capable of erection and ejaculation, and of emitting healthy semen.

In the female, the uterus and its appendages must exist, and be perfect; the ovaries contain fecundible ova; the tubes be pervious, the lining membrane of the cavity and neck healthy, and the os uteri externum and internum, hymen and vagina pervious.

2. That it was by no means necessary that there should exist, at the moment of coitus, any orgasm on the part of the female, or a complete introition of the male organ intra vaginam; a very slight peri-vulvular congressus depositing the semen upon the vulva, sufficing for impregnation.

3. The ripe graafian vesicle, secreted either just before, during, or after menstruation, and even, though not often, during the intermenstrual period, must, in some part of its course into the uterus, come into direct and immediate contact with one or more living spermatozoa, in order to be fecundated.

4. Semen contains, as its most important constituent, animalcules, spermatic cells, zoospermes, spermatozoa, or zoids, as they are variously called according to the idea which is formed of their nature. In the field of the microscope, they are seen to move about with varying activity, and whether or not they be endowed with true vitality, life, or be or be not organized animals, which last seems generally now to be believed, their volition is seemingly directed by instinct, towards, and in spite of all obstacles, the ovum which they are to impregnate. In a natural temperature, they live for 48 or 72 hours; are found living even in the cadaver, after 24 hours, and in bitches have been seen to move 7 or 8 days after copulation. Acids, urine, electricity, strychnia, narcotics, and certain vagino-uterine secretions destroy them; but of this last hereafter. Probably they are reproduced; they are certainly nourished: strange creatures, which, by union with an ovule, are capable of communicating to it, not only the physical resemblance, but the temperament and constitution of the parent. They appear in the semen at puberty; are found afterward at all periods of life; and in men of advanced age (82) have been found as numerous as in the adult.

4. The material contact of the semen and the ovule, both animated by their vitality, and perfect in themselves, is the essential condition of fecundation, and the intimate fusion of these two elements is alone capable of giving birth to the new being. *If any obstacle* impedes the immediate contact of the two germs, conception on the part of the female is impossible. Upon an accurate knowledge in regard to these causes depends the successful treatment or cure of sterility.

5. The *aura seminalis* alone is insufficient. Filtered semen is equally so. No part of the semen but the animalcules suffices.

6. The fecundating power of the animalcules seems connected with their vitality, for it diminishes, and is completely extinguished with their movements. Semen is infecundible without living spermatozoa; and it is certain, however they enter it, that they get within the vitelline membrane of the ovule, and have been seen in immediate contact with the yolk, when they part company and disappear by liquefaction.

7. The merest drop of a high dilution of the semen of a frog, directly applied to the egg of the female, suffices to fecundate; but more than one spermatozoid is required. Two hundred and fifty-five, in the experiments of Prevost and Dumas, impregnated sixty eggs out of three hundred.

8. Neither the movements of the vibratory cilia, nor an aspiratory spasm, nor capillarity, can account for the

progression of the spermatozoa. It is to their own motility, and to their power of overcoming obstacles, that this is wholly due. The passage of the spermatozoa from the uterus into the tubes occupies 8 to 10 hours; arrived at the free extremity of the tube, they reach to, or upon the ovary, by means of the fimbriæ which unite the *pavillon* to that organ. If there they meet with a mature ovule, fecundation may result. Twenty or thirty minutes are required to enable them to enter the uterus. The tubes take from two to six days to transmit the detached ovule to the uterus, where, if previously fecundated, or when fecundated, it stops and is developed, imbedded in decidua. If not, it escapes with the decidua in 10 or 12 days, or at the end of menstruation. The period most favorable for impregnation, then, is immediately before, or during, or soon after menstruation ceases. The flow of menstrual blood does not impede, but rather accelerates the progress of the spermatozoa. But how are we to account for fecundation during inter-menstrual periods, unless we suppose that coition hastens the development and detachment of a mature ovum? Fecundation and coition are separated for at least the time which is required for the spermatozoa to pass through the uterus and tubes, and reveals itself by no special signs. A single act of coitus may suffice for impregnation, of which many instances are known. If, now, we attempt to assign the causes of infecundity from a physiological point of view, we shall find that men are infecunds because they are impotent or aspermatic, *i. e.*, incapable of erection or ejaculation; and even when capable of emission, are aspermatozoic, that is, secrete a semen or fluid which contains either no or no living spermatozoa. Eunuchs possess for a while an incomplete power of erection and an ejaculation which must be aspermatozoic, which, for the lack of the stimulus of venereal appetite, they gradually lose. Impotence is not necessarily associated with either aspermatism or aspermatozoa. It is sometimes purely nervous, and when cured, the power of fecundation may exist or return. It occurs among the newly married and in the old. But very old men are not necessarily infecund, as we have seen, and the case of old Parr is in point. The only way in which aspermatozoa can be positively ascertained, is by submitting the semen to the microscope soon after its emission.

But it is chiefly with infecundity in the female that we are concerned, and allowing that there is no fault in the generative faculty of the male, it behooves us to inquire into its causes. Admitting that no physical defect of organism occur in her, and that, as we so often see, she is robust, healthy, menstruates more or less perfectly, and is free from organic uterine malformation or disease, why is it that the spermatozoa do not reach and fecundate her ova? Ill-health may, I think, possibly prevent this from occurring, by impairing the fecundity of the ova, or faults in the ovary or ova may have a similar effect. Dysmenorrhœa, though often associated with infecundity, does not necessarily cause it, and the reason of the association is probably purely a mechanical one. The cause which prevents the easy escape of the menses, and renders it painful, may equally prevent the access of spermatozoa to the uterus, tubes, and ovaria. To these we shall presently advert.

But these are not the only causes for infecundity on the part of the woman. There is another and a principal one, to which passing allusion may be found in authors, but it has by no one been so markedly assigned and scientifically considered as by Donné, and our countryman Dr. Sims, to whom Surgery and Science are alike both deeply indebted.

I allude to the *destruction of the spermatozoa* by the vitiation or peculiar constitution of the vagino-uterine secretions, by which fecundation is rendered impossible.

In Donné's "Cours de Microscopie," &c., the work of a zealous, cautious, and candid observer, we find much that is interesting and important on this subject. Acetic acid instantly kills the spermatozoa, but leaves them perfectly intact for years. Blood and milk exert upon them no deleterious influence, saliva kills them rapidly, urine instantly. Pus and the *muco-purulent matter of uterine leucorrhœa* does *not* affect them by its contact. They live perfectly well in the mucus secreted by the vagina in a normal state, which is slightly acid; but, and this observation is most important, the acidity of the mucus secreted by the vagina becomes such in some circumstances, as when there is congestion, acute irritation, or inflammation of this organ, that the zoospermes *seem unable* to live in it more than a few moments. He has even seen them, particularly, give no sign of life, in less than two minutes, in the vaginal mucus of a woman of twenty-two, affected with an extremely acid discharge. "Can this, then," Donné says, "be considered as the cause of sterility in some women?"

Vaginal mucus is white, opaque, creamy, not viscid, and always *acid*. *Uterine* mucus, on the contrary, is transparent, stringy, tenacious, like albumen, sometimes clouded with purulent matter, but always *alkaline*, turning litmus paper blue, whilst the mucus of the vagina always reddens it.

The action of this (uterine) mucus on the animalcules varies according to circumstances. Generally the spermatozoa brought into contact with uterine mucus do not suffer. But *certain kinds of uterine mucus* kill the animalcules with the greatest rapidity. Nor is this mucus distinguished from others by any appreciable characteristic, microscopic or otherwise, being either pure and transparent or opaque. An excess of alkali seems to be the only probable cause of its deleteriousness, li mus paper becoming instantaneously intensely blue.

No possible means of ascertaining the fact seems to exist, except that of submitting the spermatozoa to the action of uterine mucus of various kinds or qualities. "Do not," says Donné, "the facts related lead to the belief that alterations of the vaginal and uterine secretions play an important part in causing sterility, by killing the fecundating liquid; and is not some light thrown on its hitherto obscure causes, and a suggestion made of a rational and efficacious remedy?"

It is but doing simple justice to our countryman, Dr. J. M. Sims, to say that he is the first among us to revive those ideas, and give to them a practical application (On Mic. in Diag. and Treat. of Sterility, N. Y. Med. Jour., Jan., 1869). In this paper he lays it down: 1st, we must have spermatozoa in the semen; 2d, they must enter the utero-cervical canal; 3d, the state of the secretions must be favorable to their vitality. In the absence of the second of these conditions only is any operation to be thought of. How are these facts to be ascertained? By examining the condition of the vaginal and uterine secretions after coition. A little of each is to be withdrawn with a syringe, and placed under the microscope; and to do this accurately, the fluid must be retained for some time after in the vagina. He thinks the best period for making the investigation is the 5th or 6th day after the menstrual flow. Dr. Sims, in one respect, differs from Donné. He says, "the vaginal (normal) mucus, by its natural acidity, kills very quickly *every* spermatozoon, and seems to be a perfect poison for the superabundant ones." If this were true, fecundation would very seldom, almost never, occur. Donné, more correctly I think, says its slight natural acidity is not noxious to the spermatic

animalcules, *but is only so when excessive.* The cervical mucus is to be carefully separated and distinguished from the vaginal, and withdrawn with a syringe for examination. Dr. S. thinks it possible to obtain a second specimen from higher up the canal, or even from within the os internum, which I should think would be difficult, and finds in the one sometimes living, in the other, dead spermatozoa. Donné does not carry his researches so far. He is content to take the mucus which hangs out of the os externum, or can be withdrawn from within the neck. Dr. Sims thinks that if the cervical secretion contain little opaque spots of milky whiteness, and when it is very thick and albumino-purulent (as also when perfectly clear), it is poisonous. Donné's observations *generally* (p. 293) oppose this assertion:—*A certain quality of mucus is necessary to produce this effect*, which cannot be told from its natural or microscopic appearances: *too alkaline* (?) if uterine; *too acid* if vaginal. Be all that as it may, there is a peculiar condition of either of these secretions, whatever it be, which does kill the spermatozoa, and occasion sterility; and the great point is to remedy it. Dr. Sims justly says, it is not every woman who has dysmenorrhœa (and I add, or leucorrhœa), who is sterile, nor every man who may be vigorous and enjoy good health, who is capable of procreation. He has known half-a-dozen husbands—in one place he says many—whose semen had no spermatozoa. Dr. Sims' paper proves, and he frankly acknowledges, that the operation of incising the cervix is seldom necessary or proper, often quite uselessly performed; and he no longer thinks that the most common obstacle to conception is a more or less contracted utero-cervical canal (p. 24, lib. cit.) I quite agree with Dr. S. that the necessary investigations into this interesting and practical subject, by which alone a true and scientific knowledge and basis of action can be obtained, involve neither indecency nor sacrifice of self-respect on the part of either surgeon or patient.

If, then, it should be asked, What necessity then exists for dilating the two orifices and neck of the uterus, we answer, 1st, because of its allowing a more easy escape for the menstrual blood; and, 2d, because it allows an easier access to the spermatozoa. Although neither an aggravated dysmenorrhœa, nor a very contracted os uteri, internum or externum, are necessarily fatal to, they are unfavorable to impregnation, and should, as a part of the treatment, be remedied. I cannot, for my own part, imagine that flexions, however great, of a part so short and so flexible as the neck of the uterus, which are so readily restored by the introduction of a long and suitably-sized speculum, and which, moreover, I so seldom encounter, can offer any serious impediments to fecundation. But the contractions of the orifices are real and unmistakable, often obstinate, and contribute, I doubt not, to this result; but even then very partially, for, as Dr. Sims justly observes, cases are recorded where conception occurred when the os barely admitted a small-sized probe, and that spermatozoa now and then pass along the Fallopian tubes, which ordinarily admit a bristle. It is, then, to the state of the vaginal and uterine secretions, the semen being healthy, that we must look for the great cause of infecundity in the female. The remarks of Joulin on this subject are worthy of repetition:—"The contraction which has its seat at the internal orifice of the uterine neck is one *of the most common causes of infecundity;* and particularly among multiparæ. But women who have borne children sometimes exhibit this disposition, which oftenest coincides with an extreme narrowness of the neck of the womb and imbrication of the folds of the *arbor vitæ.* This cause of sterility, which is usually accompanied with the phenomena of dysmenorrhea, was until lately unknown.

"The treatment consists in dilating the constricted region. I prefer a cylinder of prepared sponge, small to begin with. I have obtained 2 successes with this proceeding;" Becquerel 4, and Meisteler 7, out of 9; McIntosh 24 out of 27, 11 of whom bore children; and Corty several followed by conception (410). This certainly shows that, although closure of the uterine orifices does not necessarily prevent, dilatation exerts a considerable influence over the subsequent fecundity of the patient.

"The first sponge," says Joulin, and Corty repeats him, "does not pass through the internal orifice; each one penetrates a little further than the first, and simply dilates the neck; but later, the inner orifice becomes permeable. The sponge applied swells immediately, and the woman can attend to her business without feeling the least inconvenience." This is only partially true. It sometimes produces pain and irritation within 24 hours, and requires removal. I once saw frightful results from the thrusting of a sponge-tent into the uterine cavity. Corty says an interval of 2 or 3 days should elapse between each introduction. Joulin says, if not removed, generally about the 3d day a discharge takes place of a clear, abundant, *fetid* fluid, which disappears on its removal. "I renew," he says, "these applications twice a month—10 days before and after menstruation. When the dilatation is sufficient, I suspend their introduction, and recommence if the stricture tends to reappear, for often the amelioration is only temporary. It supplants the incision, which, unless the sponge-tents are used simultaneously, cicatrizes and contracts, leaving things as they were. It is simpler and less dangerous, and women, at least, if they have not patience to follow out the plan, *are often relieved of their dysmenorrhœa.*" "Uterine deviations," says Joulin, "are not causes of sterility, for the semen need only to be deposited in the vaginal cavity, not projected into the os. Unless, then, when very intense, and the angle of flexure very great, displacements of the uterus do not offer any serious obstacles to conception." Tents of sea-tangle (*Laminaria digitata*) are preferable to prepared sponge, because they can be longer retained without producing irritation and fetid discharge, and do not rot and break; but I do not find them as easy of introduction. Corty repudiates them.

Other means of dilatation are employed. Dr. McIntosh used flexible metallic bougies. Bennet prefers wax or gum-elastic bougies to metallic ones. Simpson uses metallic stems of graduated sizes left in the uterus for various lengths of time, and sometimes changed daily for days together, or left in permanently. With the gum-elastic French bougie, fine or olive-pointed, varying in diameter above the point (bougie à ventre), all my own successes have been attained. Generally, the point reaches to and strikes firmly against the os internum, and irritates it spasmodically. After a time, if not too large, with a little management, it enters the stricture and passes up to the fundus with little or no pain. The next time, again, perhaps, nothing will pass, and so on, until sufficient dilatation is effected to admit a larger size. Sometimes, on the same day, one bougie, after remaining in a little while, may be withdrawn, and a larger one passed, but not often. Strictures of the os internum uteri, like strictures of the urethra in the male, are irritable and capricious, and must either be coaxed or taken when in good humor. If it is going in, the bougie must pass in quickly, almost precipitately. I think I understood Dr. Kammerer to say that he also made use of steel bougies of graduated

sizes. All I have to say about this is, that safe as these may be in skilful hands, and successful—they have not been so in mine—they cause pain, and, I think, excite irritation and spasmodic contraction in the upper os, which makes it difficult to pass them through it; and if pushed in forcibly, might, I should think, do mischief. I can conceive of cases in which it might be necessary to incise the outer os, or to dilate the cavity of the neck with sponge or laminaria, in order to introduce the bougie; but when a hysterotome of any kind, a sponge-tent or slip of laminaria can pass, a slender-pointed, flexible, gum-elastic bougie, I should think, could be passed also, and with time and patience effect the object. Try to learn the course of the stricture, pass in the bougie in it, firmly and quickly, through the os, *au fond*. If it means to go, it will then, and may be retained for a longer or shorter time. I believe it would be well to leave it in for some hours. If you do not succeed after a short trial, suspend the operation till a later day. If the stricture is, or becomes irritable, the more you try, the less likely you are to succeed. Success is either null or immediate. When complete dilatation has been obtained with a bougie of large size, the passage of it becomes easy, but it must be repeated at intervals; after menstruation; perhaps best in the true inter-menstrual period (10 or 14 days after), for if the woman should happen to have conceived, abortion would almost inevitably follow the introduction of the bougie into the uterine cavity. The bougie should be new, firm, and not too flexible, or it will double up and not pass. Bougies that have been used many times are liable to this objection. If, after withdrawing the bougie, a laminaria tent could be introduced, and left *à démeure* some days, it would be well; but it is not easy or always possible, and the bougie alone must be depended upon.

All these operations have for their object the facilitation of the escape of the menses and removal of dysmenorrhœa, and the allowing of an easier and freer entrance to the spermatozoa. But beyond this is the aid afforded to methods intended to effect the change in the uterine secretions necessary to insure the vitality of the spermatozoa. If this cannot be done, our researches and conclusions upon this point in the pathology of sterility will be of no avail. It is to be effected, as far as I know, by cauterization, chiefly with nitrate of silver, introduced in the solid form, or by injection, into the cavity of the neck and uterus; although other substances are employed. Dr. Sims' pamphlet is unfortunately silent on this point. Corty ranks among curable causes of sterility, simple or complicated imperforation, congenital or accidental narrowness of the uterine orifices, the frequent cause of mechanical dysmenorrhœa; and says, by dilatation and double incision of the neck, he has obtained unquestionable cures of more than 15 sterile women, whose fecundation followed the treatment in from 3 to 15 months. Flexions, when very decided, are causes of sterility, and incurable when held down by adhesions; and he does not partake of the opinion of M. Joulin, on the small importance of deviations of the uterus as causes of sterility. He thinks that the glans penis should, at the moment of ejaculation, be opposite to the meatus uterinus; and that even a temporary restoration to the natural position (p. 1008) suffices sometimes for fecundation; and that after this, and after dilatation even, no time should be lost in attempting fecundation, and that certain positions of *the female in coitus* are preferable in some cases to others. Hypertrophy even of one lip, and conicity of the neck, congestion, inflammation, granulations, and fungosities are all obstacles to fecundation. This appears to be also the opinion of Kammerer, and of C. Mayer of Berlin (1856), whom he cites in his paper.

In Dr. K.'s patients, retroversion (20), anteversion (18), anteflexion (83), retroflexion (71), hypertrophy (65), small os (24), stricture of internal os (35), were the commonest lesions, and $\frac{4}{5}$ths of the whole number were affected with some form or other of uterine catarrh. If the views which I have herein presented, relative to the occasional and frequent destructiveness of the accompanying secretions to the spermatozoa be correct, some of the sterility in them may be fairly, I think, attributed to it, and some of the successes to the means employed for its removal. Corty thinks that very abundant leucorrhœal secretion may expel the semen from the uterine cavity, when it has once entered, and the very viscid, tenacious mucus which plugs the os oppose its entrance.* Vaginal, he thinks less injurious than uterine mucus, the latter of which may have a very injurious influence upon the relatively very small quantity of sperm which enters the uterine cavity (1012). He adds:—In a great number of cases the great abundance of the leucorrhœa, and even its purulence, does not prevent fecundation.

Corty differs from Joulin as to the effect of a want of orgasm on the part of the female. He thinks it may occur without being felt or expressed, that it is capable of development and education, and hence fecundation seldom occurs until after some months (12, 18, 24, and 36) of married life; again, in some cases of sterility, coinciding with perfect general health of the genitals, and only attributable to absolute defect of orgasm, even in women very desirous of becoming mothers; or awaking, together with fecundity, after a lapse of years, and thence pursuing the natural course of its evolution; a new lover, or husband perhaps, determining the result. But it is equally certain that many entirely cold and passive women are extremely fecund. Sterility, on the other hand, may depend upon a totally opposite condition. Menorrhagia (a precocious abortus), or inter-menstrual menstruation, by its tendency to reproduce itself when the ovum is recently fecundated, becomes an obstacle to gestation. The number of causes, single or allied, upon which sterility may depend, should certainly render us sober of promise to women in whom it is only relative, and affords hope of recovery; while the very frequent realization of that hope, under well-directed treatment, should warrant, I think, a patient and continued effort on the part of both patient and physician.

Among the chief means of correcting the morbid conditions of the uterine mucous membrane upon which noxious secretions may depend, may be said to be cauterizations of the mucous membrane of the neck and cavity, and certain intra-uterine injections. The caustic most commonly in use is nitrate of silver, used externally to ulcerations and abrasions of the neck, and internally applied to the mucous membrane of the neck and cavity, to repress granulations and fungosities, to diminish hypersecretion, and by modifying the morbid condition of the glands which produce leucorrhœa, change the character of the secretion itself into one less injurious to the vitality of the spermatozoa. Upon this subject M. Corty says:—"The cauterization may be performed, after dilatation, with a camel's hair brush, but as this is an unenergetic method, the idea has arisen to introduce the solid nitrate and apply it directly over the surface."

Various porte-caustics have been devised for this purpose, intended to secure the caustic from being

* Sometimes the semen is all instantly thrown off by the vagina, by too soon rising after coitus (Sims 12).

broken off within the cavity. "But," says M. C., "having myself met with the accident and satisfied myself not only of its harmlessness, but of its happy results, I fix a piece of solid nitr. of silver, of suitable length, in an ordinary platinum porte-nitrate with a long handle; place the patient in supination; introduce a wooden speculum; examine very gently with a sound the direction of the utero-cervical canal, and immediately after carry the crayon of nitr. silver even into the uterine cavity." This is easily said, but is it quite as easy to do? M. C. continues: "Instead of endeavoring to withdraw it intact, I use, on the contrary, all my endeavors to precipitate it, to break it off, which is not very easy to do, and I abandon it in this cavity (p. 265). The vagina is then tamponed with a cloth, wetted in a solution of salt in water, sustained by a second one, and the speculum withdrawn." "I can say," he adds, "that I do not know any more heroic means than this *little* operation, which it is not often necessary to repeat, in the treatment of obstinate leucorrhœa. I have not observed serious accidents to follow it. Once only I saw atrocious pains, not yielding to baths, antispasmodics, nor narcotics." The neck having swelled, and the os being occluded, he incised it some hours afterwards, to facilitate the expulsion of the mucus and caustic itself. In all the other cases, the pains, "even very strong in a small number of women," have always yielded, however violent, to general and local antispasmodics, and to cool hip baths, with continuous vaginal irrigations, prolonged if necessary for several hours.

Those of my readers who may feel disposed to adopt this heroic and comparatively innocuous and "incomparable" little remedy, 619, will do well to consult M. Corty's Traité Prat., &c., Paris, 1866, p. 264 & 7, 618. It is to be employed only, be it remembered, when the passages are freely pervious, and there exists neither metritis, perimetritis, ovaritis, flexion, deviation, stricture, nor constriction of orifices.

M. Corty is not in favor of intra-uterine injections. He says that they are the most dangerous that can be employed, and has seen them instantly followed by very formidable accidents, to say nothing of the possibility of their passing through the tubes into the peritoneal cavity and giving rise to fatal peritonitis. M. C. uses no other fluid than pure water, and even then only where there exists a perfect facility for the escape of the injected fluids.

Dr. Jas. Kammerer, of this city, whose paper on Uterine Catarrh, reprinted from the *Am. Journ. of Obs.*, vol. ii., No. 2, August 1869, I have just been favored with, is a warm advocate, on the other hand, in their behalf, and uses them constantly with safety and success. When catarrh is accompanied with true angular anteflexion, the posterior lip of the uterus must be incised by Emmet's operation, to straighten the canal and provide for a free exit for the catarrhal secretion; and extreme smallness of the external os requires a bilateral incision. The patient being placed in a recumbent position, a sound is introduced into the uterus, and the depth, capacity of the cavity, and the mobility of the organ accurately measured and ascertained. A cylindrical speculum is then introduced into the vagina. In order that an entire permeability of the cervico-uterine canal shall exist before the injection is attempted, Dr. K. is careful to dilate it by means of a series of sounds, four in number, of varying sizes, made of copper or German silver, of which exact figures are given on pp. 14 and 15 of the pamphlet alluded to. These are successively introduced through the speculum, until full dilatation of the canal is obtained; after which injection and escape of the injected liquids are easy and safe. After washing out the cavity of the uterus with a long-nozzled India-rubber bag syringe, the appropriate remedy, in liquid form, is injected. These are chromic acid, Lugol's sol. of iodine, dilute or concentrated, and carbolic acid diluted, and also sulph. zinci, 10 grs. to the ounce. Of carbolic acid as an intra-uterine injection, I find no notice in the three French works I have consulted, Joulin, Corty, and Becquerel, and do not know with whom it originated.

Dr. Squibb, in a recent pamphlet, speaks of it as a mild local anæsthetic, useful in cystitis and leucorrhœa, and says that its use has often been favorably noticed in the foreign journals. Weak solutions of these dilute substances may be freely injected, raised to a certain temperature, not cold; but of the concentrated, 10 to 20 drops is the most that can be safely injected, the dilute being in ordinary cases the most prudent. Caution and skill are necessary; for Dr. K. himself allows (p. 23) that accidents may occur occasionally, notwithstanding the most careful observance of the rules he has laid down (p. 12). Dr. K. observes that he has often cured patients of their catarrh, as well as their sterile condition; but the peculiar morbid action of the secretions upon the spermatozoa, to which, in this paper, I have endeavored to direct attention, is not, so far as I have observed, alluded to. Dr. K. remarks that a new cause of sterility, hitherto little attended to, may be a destruction of ciliary uterine epithelium from the too powerful application of escharotics. The direction of the cilia, however, is from, and not toward the uterine cavity. There can be no doubt of the safety and efficacy of intra-uterine injections in Dr. K.'s experienced hands, and many cases are cured by it no doubt, which would resist any other mode of treatment. Dr. K. looks upon uterine catarrh as the most frequent cause of sterility in the female, having met with it in 342 cases out of 408, but without assigning any reason.

The womb, in the present state of uterine therapeutics, must be looked upon as a meek and long-suffering organ, which endures with wonderful patience the rough handling, the burnings, slashings, pokings, and scrapings it receives at the hands of the gynæ-atrics. Still gentleness and caution are necessary; for it does not *always* submit to them without resistance, remonstrance, or recalcitration.

If these remarks shall conduce to a better study and understanding of the causes of sterility, and a more successful treatment for its removal, my object in writing them will be happily attained. The action of the vagino-uterine secretions upon the spermatozoa, will soon, I have no doubt, become an interesting and important specialty, and, I trust, will receive speedy and due attention.

PRIZES.—The Académie de médicine de Grenade offer a prize gold medal and the title of corresponding member, to the authors of the best essays on I., The Identity or Duality of the Syphilitic Virus, and II., The Prophylaxis of Pulmonary Phthisis. Memoirs written in Spanish, Latin, French, or Portuguese, may be addressed to the Secretary until Oct. 30, next.

PROF. VON GRÆFE, soon after his return to Berlin from Italy, whither he had gone on account of his health, lost all the benefits of his absence, and has had to abandon his professional employments to seek again the benefits of a warmer climate.

TREATMENT OF EPILEPSY BY COLD WATER.—M. Decaisne (*Gaz. Méd.*, No. 30) has obtained some remarkable results; in a dozen cases, four confirmed cures, five sensible ameliorations, and but three failures.

Medical Items and News.

PERSONAL.

Dr. C. E. Rider of Rochester has been appointed Lecturer on Ophthalmology in the Geneva Medical College.

Dr. W. W. Ely.—The dregree of LL.D. was conferred upon Dr. W. W. Ely of Rochester at the late Commencement of the University in that city.

Dr. N. L. North of Brooklyn, E.D., proposes to spend the winter at Aiken, S. C., for the benefit of his health.

Professor Boehm of Berlin, Prussia, died during the past month of a dissection wound.

Dr. James McNaughton has been elected president and Dr. James H. Armesby professor of surgery by the faculty of the Albany Medical College, in place of Dr. Marsh, deceased.

The Female Physician Question in Scotland.—The Edinburgh University Court has given its sanction to the matriculation of ladies as medical students, but with this condition, that separate classes shall be formed for their instruction. The assent of the General Council and of the Chancellor is necessary to give this concession the force of university law, but the *Scotsman* appears to consider the matter as virtually settled.

A Lucrative Practice.—Le-po-tal, a Chinese "medicine man," sees some 700 patients, and enjoys an income of $7,000 per week; at least so says a California exchange.

A Needed Charity.—"The Sisters of the Stranger" have opened a room at No. 45 Bible House, entrance on Astor Place. Their object is the extension of help in money, medical attendance, and legal advice to suffering strangers. Hours from 9 A.M. to 5 P.M.

Suicides in the Prussian Army.—However great may be the late triumphs achieved by the Prussian army, it seems, nevertheless, to be the most unpopular service in Europe. The domineering of the officers, the poverty of the soldiers, and the strictness of the discipline, render life to many intolerable. To prove this, it is necessary only to state that, according to the German statistics, there were in 1868 no less than 134 suicides in the army of North Germany. The total number of deaths amounted to 1,344. This frightful proportion is four times greater than that which exists in the armies of the Confederation. We find that in the army of Northern Germany, there is one suicide for every 2,238 soldiers; in Denmark, one for every 3,900; in Saxony, one for every 5,000; in Baden, one for every 9,000; in Wurtemberg the proportion is the same as in Norway—one for every 9,784; in France there is one suicide for every 10,000; in Sweden, one in every 15,000; in Bavaria it is the same as in Sweden; and in Belgium there is one in every 17,800. It may also be remarked, that between 1849 and 1852 the proportion of suicides in the Prussian army was only one to every 9,000 soldiers.

Hebrew Benevolent and Orphan Asylum.—The managers of this institution, located on the corner of Third avenue and Seventy-seventh street, have just published their forty-sixth annual report. There are now in the asylum 158 inmates, of whom 113 are boys and 45 girls. The funds received in the last year from all sources amounted to $45,691.17, and the expenditures to $54,691.02, which includes $11,053.78 paid for steam-heating apparatus and other improvements. The permanent fund amounts to $45,615.24. In order to teach such children as shall not be otherwise suitably provided for a trade, the building owned by the society in Seventy-sixth street is to be arranged as a workshop, where they can practise various mechanical employments, which would seem a most excellent and judicious step.

Pulse-beats transmitted by means of Electricity.—We quote the following as a portion of the proceedings of the great Scientific Convention recently assembled at Salem, Mass.:

The experiments at the City Hospital in Boston, by which throbs of the human pulse were transmitted by means of electricity to Salem, were conducted with great success. The medical part of the experiment was under the charge of Dr. F. I. Knight, and the electric part under the charge of Mr. Joseph B. Stearns, President of the Franklin Telegraph Line, assisted by Mr. J. C. Upham, the manager. Mr. George Millikin, manager of the Western Union Telegraph Line, was also present. The instrument used for this delicate work is one which was devised about ten years ago. It operates in the following manner:—The patient with whom the experiment is to be tried, sits in a chair and places his arm upon a cushioned rest. The pulsation is then communicated from the wrist by a column of water, which is contained in an elastic tube, which is terminated at each extremity by a glass bulb, covered with an elastic membrane. One of these bulbs is placed upon the pulse, and upon the other rests a lever. Every pulsation raises the lever, which thus breaks the current. The experiments at the City Hospital last evening began at half-past nine. The first was with a convalescent, whose pulse beat at the usual rate of speed. Each throb was given with perfect distinctness. Connection was then made with Salem, and word soon returned that the result there was satisfactory. The next experiment was with Mr. Folsom, whose pulse had been greatly accelerated by stimulants. This also worked beautifully. The third trial was with Dr. Clark, who had greatly reduced his pulse by a dose of veratrum. The rate of pulsations in this case was about fifty-two to the minute. The next was a case of chronic pneumonia. This patient's pulse was found to beat at the rate of 122 throbs per minute, and each was distinctly worked by the electrical machinery both here and at Salem. The best experiment was with a patient with organic disease of the heart. His pulse beat very irregularly, and created quite a sensation at both places.

Transmission of Hydrophobia.—Two years since, a veterinary surgeon of the Imperial Guard, M. Decroix, anxious to clear up the point as to whether the meat of rabid animals was capable of transmitting the malady to man, ate some raw meat from a dog which had died of hydrophobia, and also some cutlets from a mad sheep. Thus far he has escaped any attack of the disease, and will probably escape entirely. His experiment has demonstrated almost certainly that the meat of rabid animals does not transmit the affection, and it has reaffirmed for the thousandth time the neutralizing effect of the gastric juice.

A Large Prize awaiting a Claimant.—For the last fifteen years a prize of 100,000 francs=20,000 dollars, has been awaiting the happy discoverer of a cure for Asiatic cholera, but the French Academy of Sciences has not been able to award the important prize; but it

voted the interest in encouragements, one of which went to Dr. Lorain for having saved the lives of several choleraic patients by the injection of warm water into their veins.

Cow-Pox in Vaccination.—M. Guerin, Member of the Academy of Sciences, affirms that cow-pox, as used in vaccination, increases instead of losing in power in passing through the human system.

A Prize of 2,500 Francs Awarded.—The French Academy of Sciences has awarded Dr. Villemain, of the Val-de-Grace, a prize of 2,500 francs for his researches into the inoculation of the tubercle of pulmonary consumption.

Prizes Awarded by the French Academy of Sciences.—Drs. Felz, Austin Flint, jr., of New York, and Raciborski, were each voted prizes of 1,500 francs, the *first* for "New and Remarkable Observations on the Capillary Blood Clots;" the *second* for "Experimental Researches on a new Function of the Liver;" and the *third* for his excellent treatise on "Menstruation."

Cleft of the Soft Palate.—In 1816, Graefe, of Berlin, was the first to attempt the operation for Cleft of the Soft Palate.

Quantity of Meat Consumed in London and Paris.—If the computation of Dr. Winter be correct, the consumption of meat in London is not less than 30½ ozs. per head weekly; or about 4⅜ ozs. per day for every man, woman, and child. In Paris, according to M. Armand Husson, who has carefully collected the *octroi* returns, it is rather more than 49 ozs. per head weekly, or just 7 ozs. a day.

Reproduction of Bone by the Marrow of Bones.—M. Gonjon has won the prize of 500 francs, granted by the French Academy of Sciences, for demonstrating that the marrow of bones has the same power of reproducing bony substance as the periosteum, that engrafted elsewhere in the body it possesses the extraordinary quality of reproducing bone, as the author showed in a rabbit in which bone had been made to grow under the skin by the transplantation of some of the animal's marrow!

The Barbier Prize.—This prominent prize of the Paris Academy (for any precious discovery in medicine, surgery, or pharmacology) was divided between M. Fraser, for a profound study of the plant which gives the Calabar bean—the *physostigma venenosum;* and M. Rabuteau, for experiments to define the physiological action of certain metallic compositions—the fluorides, the iodates, the iodides, the bromates, and the bromides.

Professor Ercolani Receives the Godard Prize.—The Godard prize of the Paris Academy was lately given to Professor Ercolani, of Bologna, for interesting researches on the glandular organs.

Bromide of Gold.—M. Mialhe, of Paris, uses a pile of bromide of gold where there is anæsthesia of the surface, as is common in hysterical paralysis. Redness and sensation are successfully produced by this metal.

Experiments on Cattle.—Lately a member of the French Academy of Medicine, a partisan of the infection theory, bought four fine, healthy heifers of the same age, and fed to three of them in their food tubercular matter taken from cattle that had died of phthisis, and to the other one the same food without tubercular matter. The three died of consumption in four months, the other is living and well.

Inoculation of Tuberculous Matter from a Cadaver.—Dr. Lespiand, of Paris, to prove that tubercles were not infectious, inserted a few weeks since into his own arm, in presence of other physicians, a certain quantity of tubercular matter taken from a cadaver. Since then he is met at every corner with some such gay expressions as these:—

"Why, how well you look!"

"Eh, old fellow! no cough yet?"

"Seems to me you are not looking so well this morning?"

"Come now, tell the truth. No symptoms yet?"

"Just come in, and let me thump you a little to see how the thing is going on."

Jacksonville, Ill., Blind Institution.—The foundation stone-work on the new wing for the Blind Institution at Jacksonville, Ill., is completed, and the brick-work will soon be commenced. It is being erected on the site of the old building, but about one-third less in size, being intended as a wing to the main edifice to be hereafter built.

Asylum for the Insane on Ward's Island.—The contracts for building a new asylum for the insane on Ward's Island, were awarded by the Commissioners of Public Charities and Corrections as follows:—

Moran & Armstrong, masons	$193,050
Jennings & Brown, carpenters	151,060
H. & J. L. Young, cut-stone work	79,120
James G. Dimond, iron work	14,575
Total	$437,805

The proposals are for work on a large central building, two wings and an officers' building. The work is to be commenced at once, and will be completed in the fall of 1870.

Society for the Relief of the Ruptured and Crippled.—The sixth annual report of this Society is just published. There have been treated in this institute, from May 1, 1863, up to May 1, 1869, in all 9,257 patients; 2,285 of these were attended to during the last year alone. The most prevalent ailments of children under fourteen years, brought to the institute, were white swelling, hip disease, lateral curvature and caries of the spine, paralysis and consequent deformity, club feet, bow legs, weak and knock knees, rachitis, and weak ankles. Of these several diseases there have been treated in all 2,916 cases. The amount expended during the year was $12,151, and the amount received from patients able to pay was $3,270, leaving a deficit of $8,880 to be covered by charitable contributions. The entire expenditures for the last six years were $60,841, and the receipts from patients $20,032.

The Excise Fund in Court.—The Commissioners of the Sinking Fund claiming all the revenue derived under the operation of the Excise Law of New York, have applied for a mandamus restraining the payment of any portion to benevolent or charitable institutions. The following are claimants for their portions of the funds:—The New York State Inebriate Asylum, the Juvenile Guardian Society, House of the Good Shepherd, Sisters of Charity and others.

Still another Centenarian.—Mr. John Van Emburgh, of Kearney Township, N. J., is now in the one hundred and third year of his age.

Electricity in Orthopedy.—A French charlatan wants the chance to straighten the 50,000 hunchbacks in that country by electricity.

The Physicians of Harlem, N. Y., are discussing the advantages of a local medical organization.

Yellow Fever at Key West still prevails.

THE MEDICAL RECORD.

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GEORGE F. SHRADY, M.D., EDITOR.

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New York, September 15, 1869.

PROFESSIONAL QUACKERY.

WE have so often of late received information concerning the advertising branch of our fraternity, that we are irresistibly forced to the conclusion that with them business is pretty brisk. As is usual, the medical men who flourish most in the public prints are those belonging to the second rate. They are essentially of a class who believe in the doctrine "Blessed is he who blows eth his own horn, otherwise it shall not be blown." Their necessities compel them to accept the doctrine, and thus far we cannot and must not blame them. But we object to the practice they have of cloaking their intentions by the excuse that they almost invariably offer, that they had nothing whatever to do with this or that paragraph that appeared in the newspaper. If they did not so often insult our common sense we might show them more charity. The acknowledgment of guilt is the first step towards repentance.

We take it for granted that whenever any item concerning the operative exploit of a medical man gets into the newspapers, he is somehow directly concerned in its appearance. How can it be otherwise? It is pretty generally understood that those medical men who are treated to the little puffs have not such a general reputation that the public are specially interested in their doings. The daily journals can hardly afford the services of some Jenkins to dog the steps of the illustrious man from house to house, to herald to the world his difficult operations and his many brilliant triumphs. The editors of these journals know well enough that such a course would be very unprofitable, and that the results to the public would not justify the outlay.

Granted that the reporters do get at these items legitimately—that is to say, independent of the principals—how is it that the cases are described so accurately, that all the abstruse terms are so correctly rendered, and that the operation is known to be a very rare and difficult one? We have investigated this part of the subject to our satisfaction, and have inevitably arrived at the conclusion that there is but one explanation for it. The principals have been found in every case to be at the bottom of it. This has been the result of actual inquiries at the fountain heads. In conversation on this point with a leading journalist of this city, we asked the motive of puffing one or two members of our profession, to the exclusion of all the rest. "Why, sir," answered he, "we would do the same for all, if they would supply us in the same manner." For a long time the public were treated with rather full reports of the Academy of Medicine, and no doubt it profited thereby. It was, however, a matter of surprise to not a few medical men, to know how it was that the remarks of one gentleman were always so fully reported, and that he invariably had the best of the argument whenever any member opposed his views. The case appeared clear enough when it was afterwards discovered that the gentleman always wrote the reports himself. There are a great many cases parallel to this to be met with all over the country.

Upon the assumption that modesty always accompanies merit, the Code of Ethics declares that it is "derogatory to the dignity of the profession to resort to public advertisements, or private cards or handbills, inviting the attention of individuals affected with particular diseases, publicly offering advice and medicine gratis, or promising radical cures; *or to publish cases and operations in the daily prints*, or *suffer such publications to be made;* to invite laymen to be present at operations, to boast of cures and remedies, to adduce certificates of skill and success, or to perform any other similar acts. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician." The justice of enforcing such rules as will distinguish the regular from the quack, is apparent enough to every conscientious medical man. Every right thinking and honest practitioner desires to conform to them, and it is but an act of justice that he should demand that each and every one who claims a right to the designation of doctor should do the same. We are pleased to see that an influential daily paper has taken in this respect a noble stand for the principle at stake. Commenting upon a case of barefaced professional advertising, it says:

"It should be generally known that professional etiquette is opposed to the practice, getting in vogue in some quarters, of doctors rushing into the secular journals with their cases of surgical operative procedure. Medical ethics prohibit it absolutely, and brand a man as a quack who persists in it in spite of the universal sentiment of his brethren. It is obvious that if one can do it with impunity, while the rest are withheld by the above prohibition or by a sense of delicacy, there is an end of fair play in professional competition. The former fights with both hands and feet, *pugnis et calcibus*, the great battle for life, while the rest are gyved and bound in inextricable toils.

"The only way to arrest this abuse in the interest of the great profession of medicine as well as of the gen-

eral public, is for the press to frown on such an illegitimate use of its columns, and to insist that professional matters are primarily the property of the professional journals. Their appearance in them is for the benefit of the profession, and only secondarily for that of the reporter and operator, who, however, is entitled to and does reap whatever advantage legitimately may accrue from such appeal to his brethren.

"The only way to preserve good feeling in the honorable fraternity of medical men is for all to observe rigidly this excellent ethical provision: Let every tub stand on its own bottom, but let one have no more room to stand on than another."

The writer of this deserves the thanks of the medical profession for thus involuntarily acting as the exponent of its views to the public. The expedient proposed is a most excellent one, and commends itself to the good sense of every public journalist.

But while we as a profession applaud such an endeavor, we must not forget to do our part in the matter. Our duty is plainly to exterminate such quacks from our ranks, to expel them from every medical society with which they may claim connection, and to cease to have professional intercourse with them. We care not what may be their professional connections, no one stands so high as to be beyond the reach of impeachment. The more elevated the position of an offender the more glaring is the disgrace to those who have the power to make an example of him.

We believe in making the charges in such cases explicit, and it is the duty of every society to which such a member may belong to see that it is done. There is no necessity of smoothing over such matters; if a member is found to advertise directly or indirectly, let him be boldly charged with it, no matter what might have been his antecedents. A professor of midwifery in this city used in bygone days to tell a story which may point the moral of this particular part of the subject:—

"A French physician, not well acquainted with the English language, was asked to examine a girl supposed to be pregnant. He gave his opinion in favor of the baby. "But," says a friend, "my dear doctor, she is a member of the church." "I cannot help it, sir. If she have member of ze church, she have baby too!"

Now we want just such a clean diagnosis for these advertisers; and let them understand that the time of reckoning has come. Let the Committees on Ethics take the pains to sift each case to its bottom, and they can secure conviction in nine cases out of every ten. The committee should not take the explanation that the advertiser knew nothing at all of what was going on, but should go to work to prove the contrary, and this can in the majority of cases be easily done.

Population of Rome, Italy.—Rome has a population of 220,532, according to this year's census.

Perhaps too many.—Italy is kept in a state of corporal sanity by ten thousand doctors.

Reviews and Notices of Books.

Electricity in its Relations to Practical Medicine. By Dr. Moritz Meyer, Royal Counsellor of Health, &c. Translated from the Third German Edition, with Notes and Additions, by William A. Hammond, M.D., Professor of Diseases of the Mind and Nervous System, and of Clinical Medicine in the Bellevue Medical College; late Surgeon-General U. S. Army, etc., etc. New York: D. Appleton & Co. 1869. 8vo, pp. 497.

We like this volume of Dr. Meyer, because it is admirably adapted to the requirements of the medical practitioner. A short history of electricity and galvanism is given, as well as a record of the numerous experiments made, and conclusions arrived at, in regard to the physiological and pathological influence of currents upon the animal tissues; but without that tiresome tediousness of detail and repetition, so common in German literature, where the author too often sacrifices the practical therapeutic value of his subject, to a desire of displaying his erudition and completeness of study. This work is not nine-tenths abstruse electrical philosophy, and one-tenth therapeutical, but the science and the art are displayed in judicious proportion.

We have a good suggestion from the author for keeping up the vitriol solution in a Daniell element to its state of concentration, which is to keep a gauze bag filled with pulverized blue vitriol suspended in the solution. Our author has no positive conclusion to offer regarding the production of electro-muscular sensibility. With regard to affecting the brain and spinal marrow through their bony coverings, he believes that beyond doubt the conducting of the galvanic current into the spinal marrow is possible.

Some of the after effects of electric applications, and which often appear hours after the operation, which are referred to are, an inclination to sleep, which comes on sooner or later after the sitting, so that often those who suffer from sleeplessness are freed from this misfortune on the application of electricity; an earlier and fuller flow of the menses; relief to localized pains from neuralgia and other causes; certain mental disturbances under certain conditions. Rules are given as to the propriety of using the constant or the interrupted current, the latter being applicable (*a*) to excite the muscles, the nerves of sense, the sensory or the motor nerves; (*b*) to produce contractions of the blood or lymphatic vessels; (*c*) or to affect certain organs supplied from the sympathetic: while the use of the constant current is indicated in those cases in which we wish (*a*) to excite the nerves of sense, or those of the skin; (*b*) to destroy the skin or mucous membrane; (*c*) to produce an increase of warmth; or (*d*) to induce a chemical process, and also coagulation of the blood.

A great number of apparatuses are described, many of which are illustrated by engravings. The battery of Middeldorpf, and the larger Stöhrer, are preferred to Grenet for purposes of galvano-cautery. Remak's zinc-carbon battery is designated as the most convenient apparatus for the application of the constant current to medical purposes. Among the inductive apparatuses those of Duchenne, Stöhrer, and Du Bois-Reymond are given full credit for the various advantages they possess; but the author has had constructed a modified Du Bois' apparatus, by means of which he can better decrease the frequency of the shocks, by lengthening the hammer; strengthen the extra current, by using the secondary spiral to lengthen the primary one; and by

means of a mechanism attached to a foot-board, regulate and vary at will the strength of the current. The American apparatus of Kidder is mentioned in the text as admirably adapted to the home use of the patient in cases requiring lengthened treatment, and receives especial commendation from the editor in an illustrated foot-note, and in an appendix. Distinct instructions are given for irritating the nerves of the various muscles of the limbs and viscera.

An excellent *résumé* is given of the action of the current upon individual muscles and muscle-fasciculi, the reader being referred for closer study to the works of Duchenne and Erdmann.

That portion of the work relative to the value of electricity in the diagnosis, prognosis, and treatment of paralytic and other affections, is illustrated by numbers of well-narrated cases from the practice of the author and others, some of which are given as examples of error in prognosis, and unsuccessful treatment.

The investigations at Turner's Lane Hospital, by Drs. Mitchell, Morehouse, and Keen, are not mentioned, being probably unknown to the author. This deficiency in the subject of traumatic paralysis is noticed by the editor, who has himself supplied another deficiency in the subject of organic infantile paralysis. Lead paralysis from the use of cosmetics, and of snuff done up in lead paper, receives an adequate share of attention; and the author states in a foot-note that since his publication in 1854 and 1857 of cases of the latter description, laws have been passed in France, Belgium, Prussia, and other states, forbidding the packing of tobacco in lead. The subjects of other forms of paralysis, progressive locomotor ataxia, progressive muscular atrophy, hyperæsthesia, neuralgia, spasm, rheumatism, suppression of excretions and secretions; the use of electricity in surgery and in obstetrics, all receive due attention. In fact, as far as the therapeutical applications of electricity are concerned, this work is more satisfactory than any other we have yet consulted.

But little has been added by the American editor. We must congratulate Dr. Hammond upon the happy manner in which he has Anglicized a German book. The disposition to give every word its isolated literal meaning compels most translators to preserve the foreign construction of sentences, rendering their work awkward and unsatisfactory. With but few exceptions we would hardly have known that the book we have just read was not originally written in English, so perspicuous has been its rendition.

The typography is excellent, and the proof-reading has been conducted with great care. The work is printed upon tinted paper, presenting a very attractive appearance. The illustrations are well cut.

Dr. Meyer gives full credit to other workers in the same field of investigation, presents their claims with great candor, and brings himself forward but very modestly, intimating what little he may have of peculiar views, rather than thrusting the fact upon the reader's attention; and where the sentiments of others express well what he has to teach, he prefers quoting their language to substituting his own. The work is conveniently arranged in sections, on subjects naturally following each other in a comprehensive view, and each section is preceded by an extensive bibliographical table, intimating the sources from which the subjects treated of have been studied. As the work of a candid, modest, and competent author, we bespeak for this book the confidence of our readers, and trust that all of them who profess to employ electricity in medicine, scientifically and understandingly, will avail themselves of the English dress in which it is offered by Dr. Hammond.

PHOTOGRAPHS OF SKIN DISEASES, Taken from Life, under the Superintendence of HOWARD F. DAMON, A.M., M.D., Fellow of Mass. Med. Soc., &c., &c. Boston, 1869.

WE have on a former occasion announced the plan of Dr. Damon to issue photographic illustrations of cutaneous diseases taken from life, to appear in four series, each to consist of six illustrations, making twenty-four in all, of which the first two plates had then reached us, representing chronic eczema of the hand and herpes zoster; and have now before us two other numbers of the first series, each containing two plates, representing respectively cases of ecthyma, impetigo, and two forms of rupia; and also the three numbers of the second series, each containing two plates, with photographs of two forms of alopecia (a. circumscripta and a. areata), two varieties of herpes (h. circinatus and h. iris), and two views (one of arms and one of legs) of a case of congenital ichthyosis.

The photographs are handsome specimens of art, and convey accurate ideas of these varieties of cutaneous diseases in which mere form and distribution are the principal points to be shown; but must, of course, fall short of what is desirable in those varieties (and they constitute, unfortunately, a large proportion) in which color is almost, if not quite, essential to their diagnosis. Every practical dermatologist knows how indispensable color, and indeed mere tints of color are in some cases.

We think also that it would add to the value of these illustrations if they were of a larger size, and consequently more distinct. Some varieties of disease, as that of chronic eczema of the hand and ichthyosis, are brought out in this way with special distinctness, and also some forms of alopecia; while, on the contrary, no idea of herpes iris can be conveyed by this mode of illustration, nor would it be of much practical value in syphilitic diseases; so that it is important to exercise discrimination in the selection of subjects.

Twelve plates are yet wanted to complete the proposed series, which, we trust, will prove a success.

PHYSIOLOGICAL ARRANGEMENT OF THE CRANIAL NERVES. By EDWARD RIVES, M.D. Cincinnati: R. Clark & Co. 1869.

THIS is a very well arranged chart, giving in large and clear type the origin, exit and distribution of the cranial nerves. It will be very servicable to students by facilitating a difficult portion of their studies, and useful generally as a means of speedily refreshing the memory.

Reports of Societies.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

As the Friday evening re-unions of this Association are about to be resumed, we take occasion to put on record a brief abstract of its work last season. It has proved itself one of the most energetic and progressive of our medical societies; and the array of important papers and discussions mentioned below is an index of what may be expected of it the coming winter.

STATED REUNIONS.

OCTOBER 16, 1868.—DR. GURDON BUCK gave an interesting account of the experiments recently made, at the New York Hospital, by himself and Dr. Markoe, with the *temporary wire ligature*, applied to the femoral and the subclavian, for popliteal and axillary aneurism. The results of these cases were given, and substantially the same views expressed, at the meeting

of the County Society, reported in the RECORD of June 1, 1869, vol. iv., p. 160.

DR. BURRALL exhibited a very simple and ingenious *atomizer*, in which, by means of a flexible rubber connection with the reservoir, the spray-tube could be turned so as to throw the jet in any direction. The tubes were of glass, as free from the liability of metals to corrode, and of gutta percha to get out of order. Darrow & Porter would make it.

DR. WHITEHEAD showed a wire *mouth-speculum*, devised several years since by Dr. Mussey, of Cincinnati, and lately modified by Dr. Elsberg, who had added a tongue depressor. Some instrument of the kind was almost indispensable in many operations.

Dr. W. related a case of *tetanus*, in which he had employed the *constant current* with no marked benefit.

DR. NEFTEL said that he had never seen the constant current fail to relax spasm, if properly applied and of sufficient strength. Cases of obstinate asthma were promptly and completely relieved by it. He had often poisoned animals with strychnia, and at once checked the resulting convulsions by this means. In tetanus the current might be applied either to the spinal cord, according to the directions of Matteucci, or to the vagus.

OCTOBER 23.—DR. H. G. PIFFARD, in a paper upon *The Present Condition of Dermatology*, after some preliminary remarks upon the confusion prevailing in the classification and the nomenclature of skin-diseases, gave a careful *résumé* of the recent contributions to the literature of the subject (published in *Med. Gazette*, October 31, 1868, No. 57). Some of the parasitic affections were demonstrated under the microscope; and a case of the somewhat rare and still obscure *pelade* (alopecia areata) was exhibited.

DRS. KEYES, WEISSE, and NEFTEL followed in discussion. The last had, like most others, been unable to discover a parasite in alopecia areata; but he had discovered that there is always partial anæsthesia of the affected part. There was no doubt in his own mind that it was a nervous affection; and the figure of the bald spot would seem often to correspond to the distribution of some small nerve. He thought the electric brush would prove of service.

In the course of some remarks upon the spedalskhed, which he had mentioned as endemic in, though not peculiar to, Norway, DR. PIFFARD, referred to a very interesting case of *Greek leprosy*, still in Ward 7 of Bellevue Hospital, where it had been for some five years. The patient was about twenty-two years old; had already lost joints of all his fingers and toes; and had been subjected to tenotomy.

DR. WHITEHEAD presented a forceps-like instrument, devised by himself and Dr. Burrall, for *temporary compression of arteries* in continuity, on the principle of acupressure.

DR. WEISSE had seen Mr. Porter use for this purpose, in ligature of the innominata, an instrument like a small lithotrite.

DR. HOWARD objected to Dr. Whitehead's instrument that it must necessarily reopen the wound in removal. He gave details of a vivisection he had just made to determine the effect of a *loose silver-wire ligature*, applied eleven months before, so as to two-thirds close the calibre of the artery. The wire had remained *in situ*, and the artery for half an inch was reduced to a fibrous cord of half its original size. There were no traces of inflammatory action.

DR. WEISSE had seen a case at St. George's Hospital, where the femoral had been ligated with silver wire, for popliteal aneurism, by Mr. Holmes. The wound had healed by first intention, and the man had the wire still in his thigh. Mr. Lister had obtained a similar result from a silk ligature dipped in carbolic acid, applied to the common iliac.

DR. HOWARD inquired how it was known that the ligature remained *in situ*. He had, he thought, completely demonstrated that a ligature of any kind whatever, if applied tightly, will always leave the point of application, and find its way either out of the body or to some dependent part, where it may become sacculated. Only when so loosely applied as not to strangulate the vessel, will it remain in place.

MR. PORTER exhibited a new and convenient form of galvanic battery.

OCTOBER 30.—DR. FORDYCE BARKER, in a paper upon *Sea Sickness*, began his discussion of this affection by a rapid review of the various theories that have been held concerning it. Semanas charged it to miasma generated in the confined air of the ship; but it was suffered equally in open boats. Darwin thought it occasioned by the sight of objects always in motion; but the blind were no more exempt from it than the seeing. Keransaen regarded it as resulting from agitation of the abdominal viscera; but riding, jumping, gymnastics produced no such result. Wollaston considered it due to vascular engorgement of the brain, mechanically produced; but the symptoms of sea-sickness were quite different from those of congestion. Bellarin held that the sudden movements of the body decreased the ascending force of the blood, resulting in sudden anæmia of the brain; this, through the sympathetic system, excited vomiting, which refilled the cerebral vessels. Sper, Gilchrist, Marsh, and Fonsagrives ascribed sea-sickness to cerebral commotion from oscillation. A. Jobert looked upon it as an indigestion produced by physical interference with the peristaltic action of the stomach. Chapman, whose claim to cure the malady by the application of ice-bags to the spine had drawn attention to his views, held that its proximate cause was congestion of the nervous centres along the back, especially in those segments of the cord related to the stomach and the muscles concerned in vomiting; this congestion being due to the slight concussions of the brain against the base and roof of the skull, in the alternate rise and fall of the body; to the slight jerks, similarly produced, upon the lateral ligaments suspending the spinal cord; and to the more or less violent movements of the abdominal and pelvic viscera.

Some of the above theories the speaker deemed misty and obscure, others fanciful and absurd, others again positively false, and none satisfactory. His own view, which he stated with modesty, was that sea-sickness is "due to the sudden and recurring changes of the relations of the fluids to the solids of the body, and the nervous disturbances which result from these changes." The alternate movements of ascent and descent produce "alternations of afflux and delay in the arrival of the blood to the different organs of the body, which disturb their functions, and those of the brain especially," with results analogous to the nausea and vomiting which some persons experience after venesection.

Persons differ greatly in the symptoms of sea-sickness, as well as in the susceptibility to it; and the same is true of the lower animals, which are also subject to the malady. With some persons headache is the prominent symptom; with others, intense nausea; with others still, simple vomiting without nausea or other distress. With most, their troubles cease after a few days, but some unfortunates can never become accus-

tomed to the sea. Even in the worst cases, a strong mental emotion, such as terror, will often effect a sudden respite, if not a cure.

It is a popular error that sea-sickness is often beneficial, and never permanently injurious. Of itself, it is probably almost never helpful, and the benefit from a voyage is commonly in proportion to the freedom from sea-sickness. That it may result in serious and permanent injury, there is no question; and, though rarely fatal, yet more deaths are to be charged to it than might be supposed. The speaker had met with three in his own experience.

There are no specifics for sea-sickness; the land is the only sure prophylactic, and the horizontal posture the nearest approach to a cure. But though drugs are useless, hygiene may do much towards averting the evil or mitigating its worst features. These are often due to previous exhaustion, from the fatigue of travel, with bad ventilation and want of regular sleep and food; or from the excitement incident to preparations for departure. And frequently this exhaustion is aggravated by a violent cathartic, taken to clear out the bile, that is supposed to be responsible for all the suffering—how absurdly need not be said. Select, then, a well-ventilated state-room on the sunny side of the steamer, as central as possible, but away from the furnaces. Have all preparations made so as to secure a full day's rest before starting. Eat as hearty a meal as possible within two or three hours before going on board. Be early enough aboard, to arrange everything that may be required for a day or two; *go to bed before the vessel gets under weigh;* and stay there a day or two, or until you feel that the danger of sickness is past. Eat regularly and heartily, but *without raising the head.* On the first night out take some mild laxative, such as two or three compound rhubarb pills, to obviate the constipation to which most persons are liable at sea. (But avoid cathartics before starting. Effervescing laxatives in the morning are bad in this affection.) After having become accustomed to the sea and able to be out on deck, never rise in the morning until you have eaten something, as a bowl of porridge or a sea-biscuit, with a cup of coffee. Lastly, if rough weather comes on, don't attempt to brave it, but go to bed before getting sick.

Dr. Post had found closing the eyes give great relief.

Dr. Doremus had seen a lot of wild animals suffer from sea-sickness, and Dr. Messenger had seen fowls die from it. Both gentlemen endorsed Dr. Barker's rules, as did also Dr. Garrish, who was fond of iced champagne.

With regard to the effect of Chapman's ice-bags, Dr. Barker had made particular inquiries in England and France of many physicians and others who had used them, and found the bulk of testimony against their value. Some deemed them not only useless, but harmful, from causing nervous depression. He inquired if any one present had seen fatal results from sea-sickness.

Dr. Farnham had seen one case fatal, and another very nearly so.

Dr. Messenger had, in one case, attributed death to this cause.

Drs. Keyes, Elliot, Carroll, Neftel, and Beard joined in the discussion.

Nov. 6.—Dr. J. C. Peters read an elaborate paper upon *Epilepsy*, reviewing the various theories that have been held concerning it; giving an account of the late attempts—among which those of Nothnagel have been particularly successful—to locate the "spasm centre" of the nervous system; and glancing at the improvements in treatment, which he considered marked, even within a few months. Numerous drawings by Dr. Carroll illustrated the anatomical points. The paper appears in *Med. Gazette*, Nos. 59, 60, 61.

Dr. Neftel, alluding to the vaso-motor theory, remarked that Brown-Séquard refers the vaso-motor influence to the medulla oblongata, and not, with Bernard, to the sympathetic system. He called attention to the fact, that strychnia convulsions can be prevented, even after fatal doses of the drug, by keeping up artificial respiration; and if this be continued long enough for elimination of the poison the animals do not die. The explanation was, that the convulsions were due to reflex action from excitement of the medulla by the *besoin de respirer*, and if the blood were kept supplied with oxygen there was no such excitement.

Nov. 13.—Dr. Wm. A. Hammond read a paper upon *Some Effects of the Bromide of Potassium in Large Doses* (*Psychol. Jour.*, No. 7, Jan., 1869), relating several cases, and dwelling especially upon the mental aberrations, chiefly melancholic, sometimes produced by the drug. These were always temporary, and ceased on stopping the medicine or reducing the dose. The symptoms following large doses (*e.g.*, half a drachm to a drachm and upwards thrice a day) were commonly, in order of occurrence: 1. Contraction of pupils (an important index of cerebral anæmia); 2. Drowsiness; 3. Weakness of arms and legs; 4. Depression of mind; 5. Failure of memory; and, 6. Delusions. Some persons seemed almost completely to lack susceptibility to the medicine.

Dr. McCready thought the effects described by Dr. Hammond must be rare, as he had often given similar doses without observing them; and Reynolds, with his immense experience of the drug in epilepsy, spoke of it as deranging none of the functions. Its power to allay excitement was certainly marvellous, and particularly in the condition just preceding delirium tremens. The fully developed delirium would not yield to it.

Dr. L. Weber had not seen the peculiar effects related. He had found the bromide invaluable in the convulsions of children, as well as in other cases of abnormal reflex irritability.

Dr. Parsons had not found mental aberration produced by large doses. He had given it in acute mania, he thought with advantage. In the case of a lady, thirty years of age, with recurrent mania, who would have lucid periods of three or four weeks, and then three or four days of marked excitability, the bromide was given in drachm doses, morning and night, with no benefit. The dose was then doubled, and the case finally cured. Another case related was that of an insane woman, who had, three or four months before, had paralysis of the right side, which the doctor took to be of purely nervous origin, and not dependent on effusion. She was still subject, from time to time, to epileptiform seizures, attended by a recurrence of the hemiplegia, which would continue for three or four days and then pass off. There was at these times almost complete anæsthesia of the affected side, with blueness of skin and a diminution of about two degrees in temperature. The tremulousness was such as to prevent sleep. During the last attack ten grains of the bromide were given, and in about an hour the trembling ceased, and heat and sensation returned.

Dr. Hammond explained that he had brought these cases forward as remarkable instances, of which he had met with only some half-a-dozen, although he gave the bromide oftener than any other medicine.

Dr. Elliot related a case of congenital hydrocepha-

lus, in a child three months old, at Bellevue Hospital. The head was greatly distended and still rapidly enlarging, having gained two inches in as many weeks. Strabismus was beginning to show itself, and the prospects for the child were most unfavorable. Under these conditions the head was tapped by means of the needle of an ordinary hypodermic syringe, hugging the inner part of the upper angle of the left frontal bone. Four ounces of fluid were taken, and the trocar withdrawn. During the flow the strabismus disappeared. The child cried well, and seemed not at all depressed. Strapping was not resorted to. Drowsiness afterwards setting in, with feverishness and a temperature of 101° and 102° F., meningitis was feared. Twenty-four grains of the bromide were given in twenty-four hours, and the fever vanished; when the amount was diminished to twelve grains daily. In the three weeks that had since elapsed, the head had not regained its former size; but it was slowly enlarging, and another tapping might be required.

The speaker heartily endorsed the efficacy of the bromide in infantile convulsions.

Dr. Neftel read a brief communication on the *Ætiology of Vaginismus* (Med. Record, vol. iii., p. 433), attributing this affection, in many cases, to lead-poisonlng.

Dr. Carroll referred to the frequent cases of lead-poisoning by "Laird's Bloom of Youth." Out of sixteen cosmetics which he had analyzed, but two did not contain lead.

Dr. Le Coniat was introduced, by Dr. Hammond, as a distinguished surgeon of the French Navy, who had given special attention to the perfection of a *method of curing sea-sickness*. As the doctor did not speak English, Dr. Dwinelle gave an account of the relief he had himself obtained at his hands, and of other aggravated cases which he had seen completely cured. The doctor trusted his method as implicitly as he did quinine in intermittent fever, and expected to cure ninety or ninety-five per cent. of his cases. It consisted in the faradization of the epigastric region, and in the local application of a one-grain solution of atropia in severe cases. The negative electrode was a metal disc placed over the pylorus; the positive, a moist sponge, passed over the surface from the cardiac to the pyloric orifice. By invitation of the President, Dr. Le Coniat afterwards addressed the Association in his own language.

Nov. 20.—Dr. Geo. M. Beard read a paper upon *Neurasthenia, or Nervous Exhaustion*, in which he sought to bring the results of modern science to bear upon the ætiology of this often obscure affection, and upon its therapeutics, which must be, in general, tonic, and in which general electrization should hold a prominent place.

Dr. Bozeman exhibited his supporting apparatus, and Dr. Raphael a simple form of ophthalmoscope.

(*To be continued.*)

Hippophagy in Paris, France.—During the second quarter of the present year the city of Paris has consumed 605 horses, or about 276,000 pounds net of horseflesh for the three months. A few mules and donkeys are included in the quantity, but the exact number is not specified.

Tooth-Pulling Extra.—A lady in Sarnia was recently reading to her little son that passage of Scripture quoted from the Mosaic law, "An eye for an eye, a tooth for a tooth," when the boy exclaimed, "Mamma, what a time the dentists must have had then!"—*Canada Journal of Dental Science.*

Correspondence.

THE ABUSE OF MEDICAL CHARITIES.

To the Editor of the Medical Record.

Sir—Allow me to thank you for the remarks you saw fit to make in a recent leader upon "The Abuse of Medical Charities." As one of the "struggling practitioners" you refer to, I am very much interested in finding the long-wished-for remedy against the prevailing cheating system, and am willing to do all in my power towards the desired end. For this latter purpose I have been emboldened to offer some remarks upon some points of your text.

Your suggestion that the young and "struggling practitioners" should take the matter in hand is wise, and to a certain extent practicable. While, however, it would seem that they can do much, they cannot do all. With shame be it said that their appeals to the charitable institutions will not in most instances be listened to. These charities, instead of being for us, are in many cases arrayed against us. Paradoxical as it might at first seem, it is nevertheless true that some of them are actually cheating the practitioner of his legitimate dues, in open defiance to all the known and recognized rules of common justice. Patients are admitted into these institutions of whose ability to pay there is no doubt, even in the minds of the directors; and the attending physicians and surgeons, who, for fear of losing their places, dare not call their souls their own, are compelled to attend them. In proof of their ability to pay the doctor, we know of more than one instance in which a large bill has been rendered to the patient on the part of the hospital, not only for board, but for extra medical services, which bill in the aggregate would have been a very handsome fee for the doctor, in case he dared to claim it. Permit me to mention a case in point:—A wealthy gentleman, while driving through our Central Park, is thrown from his carriage by a pair of run-away horses and is rather severely injured. He is taken to a neighboring hospital, and it being a case of accident requiring immediate attention, he is at once admitted. A private room is spoken for by his friends, and one is placed at his disposal. He remains there a considerable time and receives every requisite attention, enjoys the society of his friends during his convalescence, and chooses his own nurse. When the time comes for the patient to take his discharge as cured, a bill is presented, some hundreds of dollars in amount, in which the item "for medical services" conspicuously figures. The patient is well enough satisfied with the arrangement, and so are the directors.

Now, sir, I in my poor way fail to see the justice of this arrangement? What right have the governors of any institution to levy an extra tax on a "big bug" that happens to be entangled in their net, and thereby make capital on the doctor's voluntary services? The patient, from the circumstances of his case, is a charity patient; and if the doctor, by virtue of his position in the hospital, gives his services without hope of reward, what right has the hospital to exact anything more? It is a bad rule that does not sometimes work both ways. If a hospital as a charitable institution claims only to admit charity patients, it naturally follows that all the patients are needy, that all are treated alike while inmates, and that all are discharged on an equal footing. A sudden accident made the gentleman I refer to a needy pauper, and as such he had no right to ask for anything more than any other person in like circumstances. If, however, there were private rooms

for which something extra was demanded if he felt himself able to pay for the accommodations, the same as he would in any ordinary hotel or boarding-house, well and good; but because he happens to be rich, is no reason why the opportunity should be seized to charge him a fee for medical services. I claim that such an act is beyond the jurisdiction of any charitable institution, so called, and that the recognition of the principle is to the injury pecuniarily of a profession which is always ready and willing to give its services gratis to the poor.

There would be no objection if the grateful patient, after paying the ordinary expenses for his accommodation, should make a handsome donation for the future support of the hospital—in fact, it would have been eminently proper and just that he should do so. The wrong thing consisted in actually levying upon him an extra tax in the first place, and secondly, as an excuse for so doing, to count in the medical services. If the medical services were so valuable because the patient was wealthy, any extra reward should belong to the surgeon and not to the institution. The doctor is not an employé of the house, but is in the relation to it of a benefactor, and if any attempt be made in actual money to remunerate for medical services, in the name of common justice to whom do they legitimately belong? But the doctor does not expect such rewards, therefore the hospital which he so freely serves has no right whatever to *demand* them.

Let us look at this subject from another point of view. Do charitable institutions exercise even ordinary care in excluding from their benefits such as are not really deserving? The answer is in the negative. All that the directors seem to care for is to admit those who present themselves, and take the money from those who can afford to pay for the ordinary or the extraordinary accommodations. If a patient is able to pay the usual advance board, but more especially if he can afford private accommodations, the hospital only too willingly receives it, and no further questions are asked "for conscience sake." This is a fact so well known that it needs nothing more than an allusion. But I take occasion to allude to it for the purpose of making exception to your remark that there is very little hope in preventing the entrance of pay patients into charitable institutions by informing the authorities of the fact. The rule may work well enough in London, but will not do here. There the medical staff has something to say in the management of a hospital, and an appeal from the profession outside will always command attention; but here in too many instances the physicians and surgeons are not so much servants to the institution and its legitimate purposes as to the boards of directors. It is not fair to say that the medical attendants of one hospital do not sympathize with their brethren outside, and recognize the fact that the practice of admitting every one indiscriminately into the wards is a great wrong, but there the matter must end. They either do not care to bother themselves about it, or else they dare not—the latter is the best explanation perhaps of the two. The doctors and directors have a very mutual understanding; the former know by experience that it is best not to make suggestions against the interests of the latter, while the latter are well aware, if it is done that an humble apology for making such suggestions will soon follow in the train. After all, custom has sanctioned the practice, and when a few merchants and politicians get control of a hospital, the medical faculty must stand aghast, else their very willing services will be no longer needed. Subordination to authority is one thing, but *homage* is quite another.

In the course of your remarks, you say: "With many of the public institutions it is the custom that no medical attendant shall use his position for the sake of making money. This is perfectly proper as a rule, but every patient who may wish to consult him has no right, if he is able to pay, to come to the hospital or dispensary, and obtain his services for nothing." By this I understand you to say that all patients who are able to pay for services have no right to take advantage of the doctor's position in any public institutions and get them free, and that it is the business of the doctor and also of the directors to prevent it. This is all perfectly right. But, sir, you are perhaps aware that the positions referred to are oftentimes used in, to say the least, rather an illegitimate way by the doctors to make money. It is pretty generally known that the attending surgeons of many of the Metropolitan Hospitals have the privilege of using the private rooms for the treatment of some of their private patients—patients who are too poor to go to an ordinary boarding-house and hotel, but who are found to be rich enough at the end of the treatment to pay a good fee to the operator. Now your correspondent contends that this is prostituting the design of the hospital, and cheating charity. If the "attending" wishes to be generous enough to a private patient to get him room and attendance for little or nothing, let him refuse also his fee at the end. The circumstances of the patient which demand gratuitous quarters will also very naturally call for free advice. What hope then is there for the young and struggling practitioner if he appeals to the authorities of a hospital to protect him against imposture? He very soon finds that these directors, instead of being good Samaritans and nothing more, are little better than praise-loving Pharisees—men who are wont to look more towards the material than the immaterial. They are like the sunflowers which the gardener planted for bean poles; after the beans came up, and fastened themselves to their supports, the latter grew so fast that they pulled up the beans by the roots.

I will not bring the charge of unfairness upon our dispensaries, for I know of instances in which patients able to pay are turned away without the stolen charity, and what is more, the managers have upheld the executive in so doing. With the clinic system in our colleges, this is altogether different. Every one knows how often people from the country come to the principal towns for the best of advice, and almost always seek it through our clinics. If the case, as you remark, is an interesting one, they are sure to be asked to call again.

When all this is done, what chance is left for the youngster with a virgin shingle to commence the practice of his art in hope of a deserved remuneration for his services? It is not, Mr. Editor, so much timidity on his part that prevents him from asking for his pay, as impossibility in getting it; and this impossibility is directly increased by the alarming amount of false charity that is so thoughtlessly dispensed by such as have it in their power to prevent it. There is much more to be said on this subject, but I leave it for abler pens than mine.

Yours respectfully,

A. Crust-Fiting, M.D.

New York, September 5, 1869.

Introduction of Mineral Acids.—The introduction of the mineral acids, not as then generally used, as stimulants or detursives, but as caustics, into the English army, during the campaign in Spain, in 1813, under Lord Wellington, was due to Guthrie.

Progress of Medical Science.

MALE FERN IN TÆNIA.—Prof. Christison (Boston *Medical & Surgical Journal*) declares the ethereal extract of male fern better than kousso or any other remedy for tænia. He has never failed with it. He gives it in doses of from 18 to 24 grains in syrup or emulsion; and repeats it at the end of a month or six weeks by way of making sure of his work. The worm never comes away alive.

CUTANEOUS DISEASES.—M. Guibont asserts that cutaneous diseases are not merely disorders of the skin, but are, leaving out of view parasitic affections, the expression of more recondite lesions—the outward manifestation of pathological conditions of the general system.—*Boston Medical & Surgical Journal.*

ETHER SPRAY IN THE REDUCTION OF STRANGULATED HERNIA.—Mr. Chavernac (*Bulletin Générale de Thérapeutique*) uses ether spray in the reduction of strangulated hernia. It lowers the temperature more promptly than ice. Sudden condensation of the gas contained in the strangulated gut is produced by the rapid lowering of the temperature.

STEATOMATOUS TUMORS OF THE SCALP.—Dr. Krafft-Ebing (*Berliner Wochenschrift*), since 1863, has removed several tumors of a steatomatous character of all sizes, by a subcutaneous injection of a few drops of a tartar-emetic solution (0.65 in 15 parts of water). The contents of the tumor were discharged in two or three days. None of these tumors have returned.

TREATMENT OF RHEUMATIC FEVER.—Henry William Fuller, M.D., in a clinical lecture "On the Treatment of Rheumatic Fever" (*St. George's Hospital Reports*), gives us his treatment, and the subjoined statistics: From January 1st, 1845, to May 1st, 1848, 246 cases of acute rheumatism were admitted into St. George's Hospital, and they remained in the institution on the average 35 days; of these 246 patients, 119, or 1 in every 2.06, had some form of recent affection of the heart; and 1 in every 6.3 had pericarditis. During the 6 years ending December 31st, 1850, 17 cases, or about 1 out of every 27 cases of rheumatic fever admitted into the hospital, terminated fatally. Since 1852, 417 cases of rheumatic fever have been treated by the alkaline treatment, and the disease did not prove fatal in a single instance. The alkalies should be given in such quantity that alkalinity of the urine will be induced within 24 to 36 hours. Dr. Fuller prefers the following prescription: ℞. Potassæ acetatis ʒ ss, sodæ carbonatis ʒ iss, aquæ f ʒ iij, rendered effervescent by the addition of succus limonis f ʒ j. This to be taken at a draught, and repeated every fourth hour.

INTERMITTENT PULSE CAUSED BY A DILATED BRONCHUS PRESSING UPON THE AORTA.—Dr. Thomas Fox reports the history of a patient who was suffering from chronic phthisis. The signs all pointed unmistakably to phthisis. What was interesting as well as perplexing was an intermission in every sixth, sometimes seventh beat of the radial pulse, while there was perfect regularity in the sounds and beats of the heart. The autopsy alone revealed the real cause. The right lung was found solidified throughout the whole extent, save a small portion of its base, into which there was no opening. There were no valvular lesions of the heart, but behind the ascending aorta was found what appeared like a tumor, but on examination was found to be the right bronchus dilated so as almost to admit the hand, while the left was but large enough to admit the index finger. That this was the cause of the intermittent pulse was demonstrated by closing the mouth and one of the nostrils, and inflating the lungs through a tube inserted in the other, when the right bronchus became so dilated as to almost obliterate the aorta.—*St. Louis Medical and Surgical Journal.*

FOR KEEPING CHLOROFORM.—The experiments of Mr. Bilty, of Erfurt (*Druggists' Circular*), show that the addition of one-fourth per cent. of its weight of alcohol will preserve the chloroform for weeks, and even months, and if one-half per cent. of alcohol be added, the chloroform, though constantly exposed to the sunlight, will remain unchanged for over four months.

MORPHIA INSTEAD OF CHLOROFORM IN DISLOCATIONS.—A German writer recommends the acetate of morphia, by hypodermic injection, to produce narcotism in dislocations. He uses from one-half to one-fifth of a grain. In connection with chloroform he considers it more prompt and certain, safer and more convenient.

PLASTER IMPRESSIONS.—H. C. Bartleson, in the *Dental Register*, describes his method as follows: I select the cup most suitable to take an impression in wax in the usual manner, only that I make no attempt to get the roof of the mouth perfect, save where the posterior border of the plate is to come, and I draw it in the manner indicated to secure as perfect an impression of the teeth as possible. Then before the wax is cool, I trim it with a warmed knife, cutting off all that projected beyond the cup posteriorly, and shave away to the depth of an eighth of an inch all that which came in contact with the gum and hard palate, except at the posterior border of the impression, where I leave about a line's breadth, and that which is close to the teeth, to preserve their form. On the surface thus made I roughen scratches for the plaster to fasten to. This prepared, I re-introduce the now cold impression to see that it has not been changed, and to observe the best manner it is accommodated to the teeth. I then pour the plaster where the wax has been removed to the amount that will slightly exceed the quantity of wax which was shaved away, and proceed in the usual manner of taking plaster impressions, pressing it freely home. All excess of plaster will pass out over the gum where the teeth have been removed. I allow the plaster to become perfectly hard, having no fear of its being held by the teeth, as it does not come in contact with them. This method secures the accuracy of wax around the teeth, combined with the perfection of plaster for the palatine surface and gums.

CARBOLIC ACID IN INFANTILE DIARRHŒA.—Dr. L. C. Smith (*Nashville Journal of Medicine and Surgery*) has used carbolic acid with cases of chronic diarrhœa where the disease had gone on to produce ulceration of the bowel, and attended with very fœtid discharges. The crystals should be liquefied by pure water, and made as strong as to be held in the mouth without producing unpleasant sensations. Of this he uses the proportion of 12 drops in an ounce of water, giving it in teaspoonful doses every two hours.

THE MINUTE STRUCTURE OF THE PANCREAS.—It is generally believed that the structure of the pancreas is identical with that of the salivary glands. M. Giannuzzi has made this organ the subject of microscopic research, and points out the following differences: "The excretory ducts of the pancreas have very thin walls, which are covered interiorly by a cylindrical epithelium. They have not the same connections with the secreting vesicles as in the salivary glands, but they establish around them a network composed of very fine tubes, which have no epithelium, and which surround the pancreatic cellules in their meshes. This network may be

compared to that of the biliary ducts of the liver. The network of the excretory ducts of the different vesicules which form the same glandular lobule have connections between them and constitute a common network. The terminal ramifications of the blood-vessels of the pancreas follow, in general, the tracks of the pancreatic ducts. The pancreatic vesicules are without walls. The pavement epithelium of the vesicules is formed of flattened cellules with a nucleus and a prolongation."—*Gaz. Hebd.*

Sow's Milk.—Professor Cameon, of Dublin (*Med. and Surg. Reporter*), has shown by recent analyses, that of all milk, milk from the sow is the richest and most nutritious. It contains 50 per cent. more of solid constituents, such as butter, cheese matter, and sugar, than does the lacteal produce of the cow.

Organic Synthesis.—Linneman (Liebig, *Annalen*) announces that he has effected the direct transformation of the acids of the fatty series into corresponding alcohols. It was accomplished by the action of sodium amalgam on anhydrous acid. The missing link between the simple alcohol (wood-spirit) and wax-alcohol, is now supplied.

Hypodermic Injection of Caffeine in Poisoning by Morphia.—Dr. Senneker communicates to the *St. Louis Med. Journal* a case of this kind, where the patient was in a dangerous condition. He injected a grain of pure caffeine hypodermically, and after having injected three grains in ten minutes the patient quickly recovered.

Disinfectant for Purposes of Dissection.—All the bodies destined for dissection in the Ecole Pratique last winter, were injected with a mixture of three litres of glycerine and one quart of phenic acid, and the disinfection was as complete as could be desired.

Perchloride of Iron in Urinary Diseases.—Dr. Lionel S. Beale (*Drug. Circular and Chem. Gazette*) uses the following combination in cases of irritable bladder.

		British Pharm.
℞.	Tr. Ferri Perchlor.	min. x to ʒ ss
	Acid. Hydrochlor. dil.	min. x to ʒ ss
	Tr. Hyoscyami	min. x to ʒ ss
	Sp. Chloroform	ʒ ss
	Inf. Quassiæ ad	℥ j to ʒ iss

Mix. To be taken twice a day, at 11 and 4 o'clock.

A New Method of Preserving Pathological Specimens.—Dr. De Camp, of Grand Rapids, Mich. (*Transactions of the Mich. State Med. Society*), gives us the following formula for preserving anatomical and pathological specimens:—

℞. Syrupus simp. (saturated strength); Aqua, ää Oj; Alcohol, 95 per cent. f ℥ iv; Acid, carbolic, ʒ j. M.

The proportions of these have to be varied according to the transparency desired in the particular specimen being prepared. For most articles the above formula is the nearest correct.

The specimen requires to have the blood removed by maceration (as it is soluble in this solution), or it will discolor the fluid.

Lactation Renewed Four Years after Weaning.—Dr. Mendenhale (*Lancet and Observer*) publishes the following rare case, reported to him by Dr. Davis, of Brookville, Ind., in the language of the lady herself:

"My youngest child was six years of age, and had been weaned four years, when I put the child of my daughter to my breast. It had been suckled occasionally by a neighbor, and when crying at home I made a practice of giving it my own breast, at the same time pouring a little milk from a teaspoon on the nipple. About three weeks after I began giving it the breast I had a slight headache, with some fever, my breasts became tender and enlarged, and soon filled with milk, as they usually had done after the birth of my own child." The child was nursed continuously, until old enough to wean, by the grandmother. She is now living, and a healthy woman, aged 58 years. The granddaughter, of sixteen summers, is also living.

Cincho-Quinine.—Jas. R. Nichols & Co., Chemists, Boston (*Boston Journal of Chemistry*), acting upon the idea that the natural alkaloidal principles of bark, in their simple unchanged condition, separated from the gross woody and other matters, would better subserve all therapeutical ends than themselves, or *any one* of the alkaloids separately employed, have prepared Cincho-Quinine. It contains no external agents, as sugar, licorice, starch, magnesia, etc. *It is wholly composed of the bark alkaloids.* 1st, quinia; 2d, cinchonia; 3d, quinidia; 4th, cinchonidia; 5th, other alkaloidal principles present in bark, which have not been distinctly isolated. In the beautiful white amorphous scales of cincho-quinine the whole of the active febrifuge and tonic principles of the cinchona barks are secured without the inert, bulky lignin, gum, etc. It is believed to have these advantages over sulphate of quinine:

First. It exerts the full therapeutic influence of sulphate of quinine in the same doses, without oppressing the stomach, or creating nausea.

Second. It has the great advantage of being nearly tasteless. The bitter is very slight.

Third. It is less costly than sulphate of quinine.

Fourth. It meets indications not met by that salt.

Formulæ and Methods of using Cincho-Quinine.—A perfectly clear solution of *Cincho-Quinine* may be made by taking 10 grains, rubbing it fine in a mortar, and gradually adding 2 fluid ounces of water, in which are dissolved 30 drops of No. 8 acetic acid, or 6 drops of sulphuric acid. The solution is not disagreeably bitter, and a pleasant elixir may be made from the solution by adding syrup and aromatic flavors.

Cincho-Quinine Pills.

℞. Cincho-Quinine (finely powdered)..xx gr.
Acid. sulph. aromat. (Elix. Vit.).....xx gtt.
Fiat pil. xx.

Mix, and rub in mortar until it becomes hard enough to form into pills. The mixture is at first quite liquid, but it soon hardens, and pills can be readily formed from the mass. This is the preferable form in which to administer the remedy, as the pills are small and can be readily taken. They need no *sugar coating* to render them palatable.

Cincho-Quinine Elixir.

℞. Cincho-Quinine (finely powdered) gr. xlviii.
Aqua rosæ (fresh)..... ℥ viij.
Syrupus simplex..... ℥ iv.
Tinct. cardamom..... ʒ ij.

Mix. Dose as a tonic, a dessert-spoonful three times in the 24 hours. The elixir should always be shaken before it is administered.

Cincho-Quinine Powders.

℞. Cincho-Quinine..... ʒ j.
Sacch. alba (powdered)..... ʒ iv.

Rub together in mortar and divide into powders of any size desired.

In intermittents, cincho-quinine may be given in 5, 10, 20, or even 30 grain doses, the same as sulphate of quinine. As an introduction to the treatment of fever and ague with cincho-quinine, an ipecac, or other emetic, is often of the greatest service. The remedy

must act upon the walls of the stomach and the connecting organs, to produce constitutional effects.

The physician in charge of the United States Marine Hospital, Chelsea, Mass. (Dr. Graves), prescribes this preparation in the wards of that hospital, and speaks highly of it as an antiperiodic.

AM OBJECTIVE SOUND OF THE EAR CAUSED BY INVOLUNTARY CONTRACTION OF THE INTERNAL MUSCLE OF THE MALLEUS, AND COINCIDENT WITH A SPASM OF SOME RAMIFICATIONS OF THE INFERIOR MAXILLARY BRANCH OF THE FIFTH PAIR.—M. E. Leudet narrates the following case to the Parisian Academy of Science. Madame C——, aged 39 years, began to suffer, at the age of 13, with neuralgic pains in the right temple and eyebrow, with spasm of the muscles of the eyebrow. Under the influence of general treatment the neuralgia and the spasm diminished, without ceasing. At the age of 26, Madame C—— began to experience an uncomfortable noise in the right ear. In fact, she presents a slight spasm of the inner extremity of the right eyebrow without any trouble in the muscles of the lids, or of the eye, and without any difficulty of vision. The right mylo-hyoid muscle, and the anterior belly of the digastric, are agitated by movements whose rhythm is absolutely the same as that of the right eyebrow. There are spontaneous pains in the right temple and eyebrow, none in the chin. The sensibility is normal. The right side of the veil of the palate is agitated by a movement of elevation, with slight obliquity of the isthmus, the point of the uvula being directed to the right. These movements are synchronous with those of the double spasm of the face.

The right ear is the seat of a sound, a sort of a double click, formed of a dry metallic sound followed by another more feeble and a sort of echo. This sound well merits the name of *dry crackling* given by Toynbee. The click is synchronous with the spasmodic movements of the right side of the velum, the eyebrow, and the mylo-hyoid region. The sound never coincides with the movements of the pulse. The tympanic membrane is agitated by movements.

These various symptoms are connected with a neuralgia of the superior maxillary branch of the fifth pair, with spasm of the seventh, and a spasm of the ramification which the inferior maxillary branch supplies to the internal muscle of the malleus, by the medium of the otic ganglion.

Thus pathology seems to demonstrate the reality of the fact suspected by J. Müller, that the involuntary contraction of the internal muscle of the malleus might produce a noise in the ear.—*Gaz. Hebd., No.* 24.

ARSENIC IN HEART AFFECTIONS.—Dr. Papillaud thus speaks of the effect of arsenic in heart affections and other diseases in the *Journal des Connaissances Medicales*:—"The best remedy for the cure or palliation of a disease of the heart must surely be that which exercises an elective and regularising action on the muscular system; which will stimulate its functions, increase its energy and power of resistance, prevent its being fatigued, and favor its nutrition. Now all these properties are possessed by arsenic in the highest degree. It produces excellent effects in shortness of breath, which is conclusive evidence of its power of regulating the strokes of the heart. Again, according to the French school, nine-tenths of the diseases of the heart proceed from rheumatism, and arsenic is the most powerful remedy for that affection, let it be ever so inveterate. It is well known that arsenic, in the shape of Fowler's drops, is a sovereign cure for ague, and it has recently been shown that it may be used as a prophylactic against apoplexy."

SUBCUTANEOUS INJECTION OF NUTRIMENT.—Drs. Menzel and Perco, of Vienna (*Wiener Med. Woch.*), are in the habit of injecting *nutriment* subcutaneously, which may be a useful discovery. They began with the injection of almond, olive, and cod-liver oils under the cutis of dogs—the quantity used being from a drachm to an ounce. After twenty-five successful experiments, their first patient was one obtained from Prof. Billroth; the quantity injected was 9 grammes. The oil was absorbed in from 36 to 48 hours, without any local inflammation, or any other evil consequence.

They have injected a drachm of milk once; one or two drachms of syrupus simplex ten times; and a drachm of the yolk of a hen's egg four times, with perfect success in each case, the substances being usually absorbed completely within 24 hours.

AQUA CHLORINII IN TRICHINITIS.—During the late epidemic of trichinitis in Hildesheim, Germany, one of the physicians, taking the symptoms of the first three patients for cholerine, prescribed concentrated *Aq. Chlorinii*, and noticed rapid subsidence of the colicky pains. He continued this remedy even after observing the mistake, and succeeded with it fully in 14 cases, 5 of which were of the highest grade, by giving at first, every third hour, two teaspoonfuls, and when the catarrh of the stomach had gradually subsided, one teaspoonful, a draught of water to be taken 5 or 10 minutes after the dose.

THE NATURE AND ETIOLOGY OF PYOHÆMIA.—M. Chassaignac, ex-surgeon to the Lariboisière Hospital, has made a good speech on the above subject at the Academy of Medicine. His remarks were essentially prudent and practical. According to M. Chassaignac, little is as yet known concerning the nature and etiology of pyohæmia. Wholesale theories, intended to explain all the various points of this obscure affection, should therefore be discarded, and, in a word, in the actual state of the question, "melius est sistere gradum, quàm progredi per tenebras," as far as theories are concerned. M. Chassaignac rejects the miasmatic theory advocated by M. Guérin, because, though it might explain the occurrence of "putrid infection" in hospitals, it does not explain the supervention of "purulent infection" in private houses, in the country, &c. Neither does it account for the absence of purulent infection in cases of "old suppuration" lying in crowded hospitals. In like manner he rejects the septic theory of M. Verneuil, which, far from simplifying the question, complicates it by the introduction of an unknown agency. M. Chassaignac establishes a wide distinction between "putrid infection" and "purulent infection." In the former affection abscesses do not occur: in the second they do. The former affection requires certain general conditions in order to be produced; the latter does not. Putrid infection may be compared to hospital gangrene; purulent infection may occur in the country, and in the midst of the most perfect isolation. Indeed, one is never sure not to see purulent infection occur after a traumatism.

With regard to the curability of pyohæmia, M. Chassaignac admits that the affection may sometimes, though very seldom, be cured. Instances of cure are, however, so exceedingly rare that great care should be taken to criticise cases in which recovery is alleged to have taken place. For the same reason little can be positively stated with regard to the efficacy of such and such a remedy. M. Chassaignac records a case which occurred in his own practice, and in which to all appearances a cure was really obtained under the employment of the alcoholate of aconite. He believes that this remedy acts not only as a curative agent, but as a preventive. In thirty-two cases of very serious

operations in which it was employed by him, pyohæmia did not once occur,—a fact which M. Chassaignac considers as extremely striking. In the case of cure to which he referred, five grammes of the alcoholate were administered daily during the whole time that symptoms of pyohæmia manifested themselves; the symptoms being, repeated rigor, dryness of the stump, numerous superficial abscesses, viscous and clammy sweats, pain in the liver, yellowish tint of the skin, &c.

Effects of Compressed Air.—Dr. G. von Liebig has recently completed some experiments on this subject, and has thus summed up his conclusions:—

1. The number of respirations under the effect of a high pressure, and after the subject has become accustomed to this condition of respiration, does not differ much from that produced under ordinary circumstances.

2. The quantity of air respired does not differ much under the various modes of respiration.

3. The quantity of carbonic acid eliminated under the two conditions is nearly identical.

Sudden Blanching of the Hair.—This moot question has been recently discussed by M. Pouchet in the *Avenir National*, and he narrates the following anecdote:—

On the 19th of February Colonel Franks was engaged near the village of Chamba with a body of rebels, and many prisoners were taken; one of them, a Bengalee, aged about 54, was conducted before the authorities to undergo interrogations. "I had then," said Surgeon-Major Famy, "an opportunity of observing personally the following facts: The prisoner, for the first time, appeared to realize the danger of his situation when he found himself stripped and surrounded with soldiers. He trembled violently, terror and despair being depicted on his countenance; and, when replying to the questions addressed to him, he appeared absolutely stupefied by fear. Then, under our eyes, and in the space of some half an hour, his hair, which we had seen to be of a brilliant black, became grey on every part of his head. The sergeant who had charge of the prisoner cried out, 'he is turning grey,' and called our attention to the singular phenomenon, of which I thus, with many other persons, was enabled to observe the completion through all its phases."

An Unusual Inquiry.—Bordeaux has a very useful Lock hospital, of which M. Venot, a specialist of great repute, is the surgeon. M. Venot's views as to certain late symptoms in prostitutes—viz., various destructions or thickening of parts originating in syphilis, which have lost their specificity—are peculiar. He considers girls found with such symptoms to be harmless. The lay committee of the hospital have expressed some anxiety on the subject, and they have entrusted M. Jeannel, head pharmacian of the military hospital, to inquire into M. Venot's practice. M. Jeannel has accepted this rather invidious task.—*Lancet.*

Subcutaneous Condyloma.—According to Dr. Teisse, the so-called subcutaneous condyloma is a monstrous hypertrophy of the cellular portion of the follicle.

Ice in Affections of the Testicle.—Diday (*The Annales*) employs ice in some of the affections of the testicular apparatus: 1st, in orchitis, sometimes complicated by blennorrhagic epididymitis, he finds it serviceable; 2nd, In testicular neuralgia; 3rd, in certain states in which pain constitutes the predominant feature.

Anomalies of the Optic Thalami.—According to Serres, anomalies in the optic thalami, and, according to Breschet, troubles of the anterior cerebral lobes, do not necessarily produce blindness.

A Singular Case in Dentistry.—A few days since, James B. Hodgkin, D.D.S., Alexandria, Va. (*Am. Jour. Dental Science*), was called on to extract the roots of a right inferior permanent molar, for a boy of 10 years. The crown of the tooth was entirely gone; there was considerable swelling about the jaw. On examination of the extracted roots a large abscess was seen on the anterior root, and from the nerve canal at the apex of the posterior root, a common broom straw projected nearly one-fourth of an inch; the other end of the straw was broken off level with the upper or crown end of the root. The opening at the apical foramen was large, and both the roots much blackened by necrosis. Considerable hæmorrhage followed.

Replantation, Transplantation, and Implantation of Teeth.—Dr. Mitscherlich, Prof. of Surgery in the University of Berlin, has written a monograph upon this subject, and Dr. Suersen, of Berlin, mentioned something on the same subject at the last annual meeting of the German dentists.

Mr. O. Salomon, in his article translated from the German, gives the following definition of the words replantation, transplantation, and implantation: *Replantation* is to replace a tooth, after extraction, in the same alveola. *Transplantation* is placing of a freshly extracted tooth from the mouth of one person into that of another. *Implantation* is the insertion of an old and dead tooth. Replantation and transplantation have been in use for a long time. The first successful implantation was performed by Prof. Dr. Mitscherlich. He lately presented the subjoined case to the Society of Medicine of Berlin. The case was that of a young lady, for whom Dr. M——, on the 2d of March, 1861, implanted for one upper right cuspid, a second lower bicuspid. Now—eight years since its insertion—this tooth is firmer than any tooth in her mouth. The color of the tooth remains unchanged—a circumstance very uncommon indeed. The soft parts around the tooth are perfectly healthy, and it has not the slightest appearance of chronic inflammation or suppuration.

In the same mouth there is another implanted tooth inserted a little later, the firmness of which is about the same as the first, but the color is of a somewhat dark violet. If any member of the profession desires to try the experiment of implantation, he is advised to open the pulp cavity, remove the soft, organic matter, and fill the same with gold. This will prevent the discoloration of the tooth.

There exist two different opinions as to the progress of replanted teeth; the one is that the tooth has an active tendency to grow into vitality, the other is that it plays but a passive part.

The first is not impossible, as may be ascertained by examining a preparation of this nature in the anatomical museum at Bonn. As to implanted teeth, they having been already dead, vital action is impossible.

The progress of the latter is, according to Dr. M.'s experiments, as follows: After the extraction of the roots the periosteum of the alveola swells slightly, and forms an exudation which surrounds the roots of the implanted tooth, and if the tooth is not artificially retained it will eject it; at the same time with the process of exudation, and undoubtedly caused by it, the cementum and dentine of the implanted root are reabsorbed in some places. In the resorbed places the exudation grows and ossifies after a time, and the tooth is thus let into place. The success of this operation depends upon the presence of the vital process of the alveola.—*American Jour. of Dental Science.*

ANÆSTHESIA IN DENTAL OPERATIONS.—Thos. C. Edwards, D.D.S. (*Amer. Jour. Dental Science*) holds to the opinion that the majority of cases of minor surgery could be disposed of without the use of anæsthetics, and especially could dentists do so. No dentist is ever justified in giving ether, chloroform, or nitrous oxide for the purpose of extracting a few teeth. The responsibility he assumes in such cases is a very grave one, and he should look well to the consequences, that he may not have cause to reproach himself afterward.

TREATMENT OF SYCOSIS BY NITRATE OF POTASH.—Mr. Stewart (*Bull. Gén. de Therapeutique*) employs successfully, in every case of sycosis, a simple solution of nitrate of potash. A saturated watery solution should be applied three or four times daily over the pustules and the whole diseased surface. If the pain caused by the application is too great, the strength of the solution is to be reduced until it can be tolerated.

MANAGEMENT OF SPINAL IRRITATION.—Dr. A. P. Dutcher (*Cin. Med. Repository*) recommends, in spinal irritation, the application of a succession of small blisters to the spine, and the following prescription:

℞. Ext. Cannabis indica..... ʒ ss.
Quiniæ valerian..... } āā ʒ j.
Ext. scutellaria..... }
M.—Thirty pills. S.—One pill every 5 minutes.

REDUCTION OF EARTHY METALS.—The learned Abbé Moigno, while referring to this subject in *Les Mondes*, says, "Our readers will undoubtedly learn with pleasure that the production of oxygen in a cheap manner, from manganate of potassa, and of pure hydrogen, by means of a hydrocarbon fuel (*combustible hydrocarboné*) on the large scale, has become a decided success; that, moreover, the reduction of the earths baryta, magnesia, and alumina to the metals barium, magnesium, and aluminium, by means of hydrogen under high pressure and a very high temperature, is successfully carried out; while, lastly, M. Caron has succeeded in obtaining, by means of great perseverance, zircon-magnesia cones, which, instead of being very breakable, and only lasting for a few nights, are fit for use for any length of time."—*Chemical News.*

A NEW CEMENT.—The following directions are given for making cement impermeable by air and steam, which is said to be superior to any in use for steam and gas pipes. Six parts of finely powdered graphite, three parts of slaked lime, and eight parts of sulphate, are mixed with seven parts of boiled oil. The mass must be well kneaded until the mixture is perfect.—*Druggists' Circular.*

LOCAL ANÆSTHESIA IN A CÆSAREAN OPERATION.—Dr. Greenhalgh has recently (*Bulletin de la Société de Medicine de Gaud*) employed local anæsthesia in a Cæsarian operation. Two currents of nebulized ether were directed for forty-five (?) minutes upon a line extending from the umbilicus to the pubes, and he was then enabled to incise the abdominal walls without producing pain. He dared to make another application of the ether spray upon the womb, which was also opened without pain. The infant was extracted alive, and the mother was well at the end of three weeks.—(*Union Méd. de la Gironde*, No. 4.)

NEW HÆMOSTATIC COLLODION.—Dr. Carlo Panesi (*Arch. Méd. Belges*) has prepared a collodion similar to that of Richardson:

Officinal collodion.....	100 parts.
Carbolic acid.....	10 "
Pure tannin.....	5 "
Benzoic acid.....	3 "

To be agitated until the mixture is perfect.

This collodion has a brown color. Submitted to evaporation it leaves as residue a pellicle similar to that of the ordinary collodion. It adheres strongly to the tissues to which it is applied, and coagulates the blood instantly.—(*Union Méd. de la Gironde.*)

CHLOROFORM IN SYPHILITIC ULCERS.—This treatment has been introduced by Dr. Llamal, physician-in-chief of cutaneous and venereal diseases at Presbourg, who affirms that it is less painful than other treatment, and cures the wound rapidly.—(*Union Méd. de la Gironde.*)

PRODUCTION OF THE METALLIC PERCUSSION SOUND.—According to Dr. O. Heubner (*Archiv der Heilkunde*, 3 Heft), the best method to educe the metallic percussion sound in pneumothorax is to lay firmly upon the thoracic wall a hard narrow pleximeter, and to percuss with an equally hard inelastic plexor. A very weak stroke suffices.

CHEMICAL COMPOSITION OF CERUMEN.—Prof. Pétrequin of Lyon (*Bul. de l'Academie royale de médicine de Belgique*) has made some researches on the composition of cerumen which differ from the analyses of Vauquelin, and of Berzelius, in making potash, which does not figure in these analyses, an important element. Cerumen according to him contains:

1. A little water, about $\frac{1}{10}$.
2. A greasy body formed of oleine and stearine.
3. A soap of potash soluble in alcohol and water, insoluble in cold ether.
4. A potash soap insoluble in alcohol, soluble in water, formed of two particular substances equally soluble in water, and one of them soluble in alcohol.
5. A substance insoluble in ether, alcohol, or water; dry, and containing potassa, a little chalk, and traces of soda.

QUANTITATIVE ANALYSIS.

Water.....	0.100
Greasy matters soluble in ether.....	0.260
Potash soap " " alcohol....	1.380
" " soluble in water, insoluble in alcohol.....	0.140
Insoluble organic matter.....	0.120
Chalk and soda.....	traces
	1.000

IN THE AGED.

Water.....	0.115
Greasy matters.....	0.305
Matter soluble in alcohol.....	0.170
" " " water.....	0.240
" insoluble.....	0.170
	1.000

REMOVAL OF POLYPI WITH THE AID OF THE RHINOSCOPE.—F. J. Knight, M.D., of Boston, Mass., lately removed two large gelatinous polypi, and a small fibrous polypus, from a young lady, 20 years of age. The polypi were all removed posteriorly by forceps applied with the aid of the mirror. The relief to the respiration and voice was immediate.—*Boston Med. and Surg. Jour.*

New Publications.

THE SCIENCE AND ART OF SURGERY; being a Treatise on Surgical Injuries, Diseases, and Operations. By JOHN ERIC ERICHSEN, Senior Surgeon to University College Hospital and Holme Professor of Clinical Surgery in University College, London. From the Fifth London Edition. With Additions, by JOHN ASHHURST, Jr., A.M., M.D., Vice-President of the Philadelphia Pathological Society Philadelphia: H. C. Lea. 1869.

Original Communications.

A SUCCESSFUL CASE OF TRANSFUSION.

By JOSEPH BUCHSER, M.D.,

NEW YORK.

The following case I have thought would not be devoid of interest to the profession, proving, as I think it does, the practicability of an operation which is seldom successful. In view of the importance of the case, I have deemed it advisable to enter more or less into detail.

The patient was Mrs. H., German, aged twenty-four, who immigrated to this country January, 1868. She continued in good health until April, 1869, on the 20th of which month I saw her for the first time professionally. She entered my office with an unsteady gait, with heated skin, dry tongue, pulse 126, complaining of headache, insomnia, and the malaise so characteristic of forthcoming typhus. In a word, an attack of typhus was commencing.

On the 8th of May she began to convalesce. The meteorismus and diarrhœa had disappeared, the skin was moist, and her appetite for light food for the first time declared itself. Finding further attendance unnecessary, some general directions as to diet, fresh air, and exercise were given.

On the 27th of May she called again, and stated that she had recovered from her ileo-typhus, and expressed herself surprised at her extraordinary appetite. For three days previous she had had hæmorrhage of her nose, which repeated itself daily from 1—3 times, and lasting ¼—½ hour each time. On the same day her menstruation appeared and was very profuse, and her general appearance was good, though she expressed herself as feeling weak. Pulse 93.

During her stay in my office the patient was bleeding from her nose. I recommended rest, a compress of ice over her nose and forehead, and ordered sulph. of quinine with sulphuric acid.

Early in the morning of the following day I was called to her, she having been, with a few intermissions, bleeding from the nose and mouth the whole of the previous night. I found on her lower extremities around the patella reddish spots varying in magnitude from scarcely perceptible points to the size of a lentil, in an expansion of about 4 inches in diameter. On her arms, over and around the olecranon, spots of about the same appearance, and extension as around the patella were noticed. On the extension side of the forearms and lower limbs were still to be found a few dispersed spots of the same kind. In the flexures of the upper and lower extremities, on the abdomen and back, there were no traces of them. There were none on the gums and mucous membranes of the cheeks; but under the tongue, around the frenulum linguæ, on the soft palate, spots of the same character showed themselves. The gums pale but firm. Pulse 92. Temperature somewhat high.

I ordered injections of alum in ice-water in the nose; food and beverages cold; high position of the head. Hemorrhage ceased entirely for several hours, but returned 3—4 times, lasting every time ¼—½ an hour.

May 29. The patient had a tolerable night's rest. No hæmorrhage during the whole night, but to-day profuse bleeding set in from the gums of the four lower incisors. This was stopped by local compression of wadding saturated in a solution of liquor ferr. persulph.

May 30. The gums of the patient have been bleeding during the entire night. The nose bled slightly. At 7 A.M. the hæmorrhage was the most abundant from the gums of the four lower inferior incisors, and for the first time also on the inner part of them. Slight bleeding also appeared on the edge of the gums of all the other teeth and the soft palate. Bleeding of the nose recurred several times. Hæmorrhage of the uterus appeared to-day in great profusion. At this time I discovered on her face, on the superior and inferior extremities, numerous darkish spots—extravasations of blood resulting from pressure; in fact, the slightest outward pressure sufficed to produce, after several hours, bluish marks. Evacuations to-day black and compact, probably arising from swallowed blood. Appetite good. Pulse 102. Respiration 24. Temperature 37°. 7 C. Profuse perspiration on the whole body; urine in small quantities, strongly reddish colored.

Treatment.—Ice on forehead, nose and neck; injections of a solution of liquor ferr. persulph. and water in the vagina, bathing of the forearms and hands in sinapised water. Patient is in a half lying position under an open window, with elevated arms. Deep inspirations are recommended. Infusum secal. cornut. ℥ iss. aq. ℥ v—every half hour a tablespoonful. Compression of the gums with wadding saturated in a solution of liquor ferr. persulph.

Hæmorrhage in general decreasing, but has not entirely ceased.

In the evening, on being brought to bed, the patient swooned away. I left her for some time in that state, only watching her pulse. I indulged in the hope that the reduced contraction of the heart might have a favorable effect on the loss of blood.

May 31. Patient suffered during the whole night from a moderate loss of blood. Hæmorrhage from the vagina not abundant, but considerable hæmaturia. Already on the 30th, I discovered extravasations of blood in the mucous membranes of the cheeks and of the lips. To-day they were larger, of the diameter of 1—2 cent pieces, and were prominent, of reddish black color, and the patient was much incommoded by them. On the 30th, too, I discovered small extravasations of blood in the mucous membranes of the conjunctiva bulbi and sclerotic. To-day two large extravasations of blood were visible on both eyes, under the conjunctiva sclerotic, which detached themselves concisely on the external line of the cornea.

On the evening of the 1st of June patient fainted again, recovering her senses in the space of about two minutes; also, this time I avoided employing any antileptica.

Hæmorrhage from the vagina and bladder still considerable; aggravated bleeding during two hours from the gums of the four lower incisors. Hæmorrhage can always be stopped for a short time by the above mentioned compression, but invariably returns.

The following four days hæmorrhage nearly subsided, only the urine contained a great quantity of blood.

Patient by this time was very much reduced. Pulse, 104. Respiration, 26. Appetite failing; all the mucous membranes more or less discolored; the sounds of the heart weak; no noise in the veins; volumen of liver and spleen—as far as could be ascertained—in normal condition.

The patient received injections of beef-tea, eggs, and claret, but they were rejected. Ten to fifteen drops of Magendie's solution were added. They were rejected in from thirty to forty-five minutes.

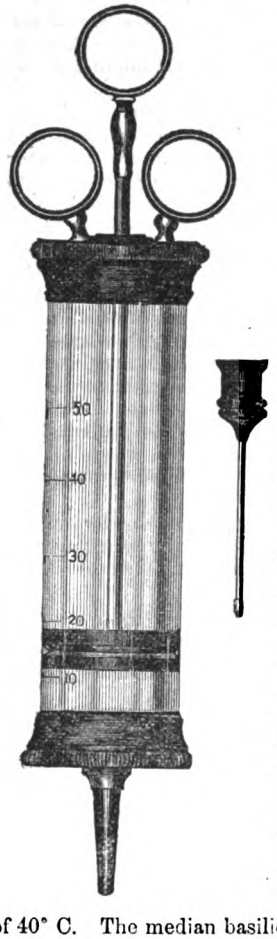
On the 6th, again, general and aggravated bleeding. Ergotin had been already employed some days ago, without any result—now again sulph. of quinine with ferr. sulph.

On the morning of the 7th I was informed that the patient had continued to lose blood during the night, and that a "colleague" of the neighborhood had offered his services, "guaranteeing" to restore her health completely within 48 hours. Thus, for several days, the patient was beyond my observation.

On the evening of the 12th I was called again, and was then informed that hæmorrhage had been, from the 7th to the 10th, moderate; from the 11th to the 12th, from both her nostrils without any intermission, full eleven hours with unprecedented vehemence. She was in a pitifully reduced state; color of face and body yellow; face, hands and feet swollen. Respiration, 55 per m.; pulse 130. States that the last three days her left eye was entirely blind; pupil in normal state. Coughs considerably. The sound of percussion over both lungs clear, only a slight bronchial catarrh. Whatever patient tried to eat was vomited. Appetite had entirely disappeared. I ordered Seidlitz powders in ice-water, sinapisms on the epigastrium, and tried again nourishing injections.

June 14. Yesterday and to-day no bleeding. Patient is in a somnolent state, and was delirious during the night. Dr. Simrock, who kindly "examined the patient to-day," detected blood extravasations in the retina around the macula lutea.

Early in the morning of the 15th of June her husband informed me that she was in a dying condition. Her respiration was then 60. Pulse 140. Since the previous evening no nourishment remained in her stomach. Was delirious during the whole night, lay in an apathetic state, gave painfully short and confused answers.



Already on the 14th I had spoken to her husband of transfusion, informing him of the danger of the operation, and of the slim hope. I repeated the proposition to-day, and it was immediately accepted by the husband.

I applied sinapisms to the epigastrium. Ice and tinc moschi, which I gave, again rejected. Pulverized moschus remained. Dr. Guleke, who had previously seen the patient, kindly declared his readiness to assist me.

After a satisfactory trial of the transfusion syringe of Eulenburg-Landois, we proceeded to the operation. We bandaged her right upper arm, previously having done the same to her vigorous and healthy husband, aged 27. A graduated glass, ready to receive the blood, and syringe were lying in water of 40° C. The median basilic vein was the most prominent. I made an incision of an inch in length, and dissected the skin till the vessel appeared, covered by its sheath. The cellular tissue of the vein was raised and cut, a soude introduced in the hollow, the cellular tissue in both directions separated, and the vein was free.

An eared curved soude, provided with two silk threads, was pushed under the vein; both threads were separated at a distance of about 6‴. Thus by raising these threads every flux and reflux of blood was impossible, at the same time the influx of air after the opening of the vein was prevented.

We then proceeded to the venesection of the husband. During a powerful flow of the blood, a solution of carb. soda, Na O+CO, was added—2 grains to ʒ ij aq.; as far as it united with the blood the same took a lively red color. Lifting the vein, a V-shaped incision was made with a small scissors. The large syringe of Eulenburg-Landois was rapidly filled, surrounded by a warm cloth, the canule affixed, the air expelled, and the point of the syringe introduced into the vein about 12‴. The transfusion of about two ounces was easily accomplished. At once a decided resistance was felt; immediate change of position of the canule proved of no avail. The syringe was withdrawn, the canule detached; coagulated blood was found in it. Syringe and canule were emptied and cleaned, about three ounces of fresh blood were received in the instrument, and above one ounce again was injected.

The patient, who could not possibly be anæsthetized, underwent the operation with ease.

The vein was on both sides underbound, the patient looked instantly refreshed, and said, "I feel better." She relished at once a glass of claret and water.

In three-quarters of an hour the operation was accomplished. Pulse immediately after the operation had fallen to 116, resp. 16. One hour later, pulse 108, respirations 18.

During the afternoon patient felt very hungry and thirsty, took light food and drank a pint bottle of claret. Evening, pulse 116, resp. 22, temperat. 37°.5 C.

The last twenty-four hours she suffered from dysuria; no urine was discharged. By application of the catheter about 24 ounces of strong-smelling urine were obtained. The nymphæ and labia pudendi highly swollen.

June 16. Pulse 114, resp. 22, temperat. 37°.7 C.

Patient passed a good night, woke three times, and each time ate and drank with great relish. Since the operation no disposition whatever to vomit; patient still coughs frequently; received solut. Magend.

To-day again, an application of catheter was necessary. The following days pulsation about the same, respiration varying from 24—30, and remained for four days persistently, from 28—30 per m. Sulphate of quin. ʒj pro die reduced the pulse from 114 to 104, and respirations to 22 per m.

Ten days after the operation, patient left the bed, walked her room several times, felt from day to day better and stronger. Puls. 84—94.

July 1. Patient received ferr. carbonat. alcohol, and drank daily two quart bottles of claret. Previous to her illness patient was never used to wine, and now stated that she could drink a quart at once without feeling any ill effect.

The wound did not readily unite. Two days after the operation a thrombus formed itself in the vena basilica, which could be traced as a hard string three inches upward. Local applications of cold compresses were made; twelve days after the operation no trace of induration in the vein could be felt. Only 10—12 days after the operation the wound began to turn reddish; until then the cellular tissue remained entirely colorless; a small, healthy, and strong granulation was formed, and on the 18th day after the operation the wound was closed.

July 7. Patient enjoys a good appetite and takes

moderate exercise. Four days ago I was called again to the patient and found her suffering from a prolapsus recti. Reposition was made. Suppositories of tannin and opium were ordered—prolapsus returned several times. Above the sphincter ani intern. we found a circular mass which was very sensitive to the touch. Tepid injections of water had a soothing effect; and a discharge of matter, lasting two days, relieved the patient.

We feared that the menses might again be profuse, but were pleased when we saw that this time they did not return.

They returned on the 24th July, and were moderate, lasting three days.

Dr. Knapp found, as did Dr. Simrock, large, venous, retinal hæmorrhage.

Patient does not yet see well, but looks as healthy and fresh as ever before.

It is a pleasure to me to express here my thanks to my dear colleague, Dr. Guleke, for his kind assistance.

Convinced that the extraordinary loss of blood produced the general debility, vomiting, high pulsation, and accelerated respiration, the only remedy left to preserve life was transfusion.

The result was successful, and still only three ounces of non-defibrinated blood were injected, the globules of which were only partly saturated with oxygen, as it cannot be otherwise in this method of operation, and yet the effect on the central organization of the nervous system was such that the patient awoke from her soporific state and only then returned to full consciousness, vomiting disappeared, and a continuous and voracious appetite followed. Nobody will be surprised that now we are highly partial to transfusion, and only regret that this operation is so seldom attempted in America, and as far as we know has never been tried in New York.

We should feel happy if by the publication of this case our colleagues should feel induced to follow the example, being convinced that many a valuable life may be saved by it.

The reasons why this operation is so seldom attempted are several. According to our notion, they are,

1. The supposed danger of the operation. 2. Expensive instruments.

1. Dumas and Prevost, Brown-Sequard, and Panum proved that defibrinated blood acts as nourishing and as reviving as such containing the fibrine. The first degree of coagulation begins at once, even with all precautions, after ninety seconds, the latest after six minutes, generally after three minutes if much male blood is employed. Thus Panum positively recommends to operate exclusively with defibrinated blood, stating that if coagula are injected, emboli in the pulmonary arteries are formed by which diminished flux of blood to the heart and medulla oblongata arises, resulting in immediate death. Panum's experiments were unknown to me before the operation.

On the other hand, Martin in Berlin, and others, transfused with non-defibrinated blood, and assert that a minimum of coagulated fibrine is harmless.

The experiments of Panum are so profound that they are convincing at once, besides the blood can be defibrinated and filtered in a time of 6—8 minutes, and at least this time is wanted to make the vein free, so that the principal objection which is made against defibrination falls away.

Should the defibrinated blood get cold it can again be made warm; besides there is not any danger if it is some degrees below the temperature of the body, and transfusion made with cold blood would only produce a short-lasting chill without any consequences.

Therefore, if transfusion is made with defibrinated blood, the operation will be without danger—supposing that no air enter the lumen of the vein. The entering of the air becomes impossible if the operation is performed after the method of Diffenbach, which we have adopted and described.

2. Transfusion will never be generally exercised in practice as long as the syringe of Eulenburg-Landois costs eighty dollars. Its straight canule, however, is of no practical use, and if it were bent rectangularly, the injection would be more easy.

We think that every syringe containing four ounces, in good condition, and not receiving any air, of which we can be assured if we try it filled under water, can be employed for the operation. Every intelligent instrument-maker should be able to furnish such a syringe with silver canule at a cost of from six to eight dollars.

THE TREATMENT OF SYPHILIS BY THE HYPODERMIC INJECTION OF MERCURIAL PREPARATIONS.

[From the *Gazette Hebdomadaire*, No. 23. an Historical and Critical leader on this subject, from the pen of Dr. Henocque.]

TRANSLATED FOR THE MEDICAL RECORD

By DR. J. SOLIS COHEN,

PHILADELPHIA.

Various recently published works afford occasion to review, at least in their important points, the results obtained by the application of the hypodermic method to the treatment of syphilis.

The first serious attempts to cure constitutional syphilis by means of the subcutaneous injection of a mercurial preparation, were made in Italy, by Dr. Scarenzio. He employed 20 to 30 centigrammes of calomel suspended in 1 to 1½ grammes of water, glycerine, or a gummy solution. He had seven cures in eight cases; but abscesses formed at the place of application. It is but just to recall the fact that Charles Hunter and Hebra have attempted this method in using sublimate more or less extensively.

Analogous attempts were made by Ambrosoli (of Milan), Barclay Hill, in England, Riccordi and Monteforte Casati in Italy.

In Germany, however, the method was investigated to the greatest extent; and by Dr. George Lewin, of Berlin, who published an extensive work upon this subject, containing the statistics of 700 observations (*Ueber Syphilisbehandlung mit hypodermatischen Sublimatinjectionen*, etc. . . . . *Annalen des Charité Krankenhauses*, Bd. xiv., 1868.

The solution adopted by Lewin was composed of 20 centigrammes of corrosive sublimate in 30 grammes of distilled water. Each injection of 75 centigrammes contained about 5 milligrammes of the sublimate, the minimum dose at each injection; the maximum dose being 10 milligrammes, which has been exceeded in certain cases of iritis. The injections were made principally on the chest, arm, and back. The points of application were varied to prevent the formation of abscesses. The proportion of small abscesses observed by Lewin has been two to three per cent. The number of injections upon 63 patients averaged 16 to each patient, and one a day. The medium total dose for the cure, to each patient, was three grains of sublimate.

The statistic results of Lewin may be given as follows:—

In 144 cases (men), there were 51 of mercurial stomatitis, or 35 in 100.

In 556 cases (women), there were 144 of mercurial stomatitis, or 40 in 100.

Of 356 patients, treated part by injections of sublimate exclusively, part by sarsaparilla and sudation at the same time, part by injections and chlorate of potassa, injections and iodide of potassium, the general result is 89 relapses, about 23 in 100, which must be compared with the number of relapses following the ordinary methods of treatment, and which is 81 in 100.

According to Lewin, the advantages of the method are, the rapid disappearance of the syphilitic phenomena, the rapidity of the cure being proportional to the quantity of sublimate daily injected. In cases of iritis cured in five and seven days, he had been able to inject a half and even three-quarters of a grain of sublimate a day, and in two injections. The rebellious syphilides and affections of the throat comport themselves in like manner under the influence of the treatment. The method is sure and precise, as is proved by the study of 900 cases during two years and a half. It is applicable to two rebellious forms of syphilis, exostosis and cerebral syphilis; it diminishes the relapses or makes them more tardy; and finally, it is easily executed.

The observations of Bœse, Klemm, and Merscheim, though upon a relatively small number of cases, confirm those of Lewin in favor of the method.

Thus Dr. Cl. Bœse (*Inaugural Dissertation*, Marburg, 1868) reports 8 cures by injections of sublimate. He injected daily, in two injections, 1 centigramme of sublimate dissolved in 25 centigrammes of water. The results were as follows:—In 8 days (18 centigrammes of sublimate) disappearance of eruptions. Pharyngeal, buccal, and genital ulcerations disappeared in 23 days after the employment of 46 centigrammes of sublimate. Condylomata succumbed, in 30 days, to 60 centigrammes of sublimate. Abscess occurred but once, and salivation but twice. The doses here are much larger than those recommended by Lewin, for instead of a medium total dose of 15 centigrammes, the medium doses in these cases were 60 centigrammes, the maximum 76, and the minimum 38. The duration of the treatment, according to Dr. Bœse, had been abridged.

Dr. Klemm (*Inaugural Dissertation*, Leipzig, 1869) reports 5 observations. The daily doses were from 5 to 7½ milligrammes. One injection a day. Results: Exanthem disappeared after 7 injections in one case; after 8 in another; buccal, pharyngeal, nasal, genital ulcerations in 18 to 20 days. No case of abscess occurred.

Dr. A. Merscheim (*Inaugural Dissertation*, Bonn, 1868) has observed 18 syphilitic cases treated by injections of sublimate. Two injections were performed daily. The syringe contained 4 milligrammes of sublimate, of which at first one-half was injected, subsequently three-fourths, and finally the whole The strongest dose injected was one centigramme. The mean duration of treatment was 30 days. One of the causes which contributed to prolong the duration was, that when symptoms of mercurialization manifested themselves the treatment was suspended. But these symptoms were not more frequent than in other methods of treatment. There occurred at several times abscesses and pain, which compelled the patients to keep a-bed. Thus, in confirming the surety and precision of the method of Lewin, Dr. Merscheim does not appear to have found the innocuity of the treatment equally perfect. Digestive troubles occurred, and more than one patient preferred the longer duration of the ordinary treatment to the painful accidents which accompanied the injections.

The study of Dr. Grünfeld is much more important. It is based upon 50 observations taken at the clinic of Sigmund in Vienna; and the results are given in tabular form.

The injections were generally made once a day, and in doses of 7½ milligrammes. The total quantity injected was a mean of 19·2 centigrammes (10·5 cent. minimum, 39 cent. maximum). The mean is above that of Lewin, which was 17·5 for men, and 15·5 for women. It is important to know the symptoms produced by the injections. They are constantly accompanied or followed by more or less severe burning, the intensity varying with the individual sensibility, the quantity and concentration of the liquid, the delicacy of the canule, and the dexterity of the operator. This sensation may pass away quickly, or remain the entire day, but without having any connection with the local reaction.

The objective symptoms are very variable, whether there remain a local redness for 3 or 4 hours, or an infiltration occurs. When the injection has not been made to a sufficient depth, it causes, in from 5 to 10 minutes, several sub-epidermic vesicles; these may be the point of departure of dermatitis, or even of abscess. Grünfeld, however, has observed but two abscesses in 1,405 injections. It is necessary to avoid parts rich in lymphatics; and the points of election for the injections are the breast, hypochondrium, and the lateral portions of the back.

The effects produced by the sublimate on the system are recognized by mercurial stomatitis, the presence of mercury in the products of excretion and of secretion, particularly in the urine, and finally by the disappearance of the syphilitic symptoms. Dr. Grünfeld has observed stomatitis less frequently than Lewin, 20 cases in 100, and in a single case the stomatitis was ulcerated. This complication, however, occurs more frequently than in the treatment by frictions, and is more resistant to prophylactic measures.

The injection rapidly penetrated into the economy, as demonstrated by the very interesting analyses of urine undertaken by Dr. Grünfeld. The smallest quantity of sublimate injected, which permitted detection of mercury in the urine, was 12 milligrammes.

Under the influence of the treatment, the syphilitic symptoms were gradually seen to disappear. An amelioration was observable some few days after the commencement of the injections. Syphilitic maculæ disappeared in 8 days, papules in 3 weeks, psoriasis in 4, pustulates in 5 or 6 weeks. Ulcerations of the larynx and pharynx improved very rapidly. The local treatment, here as in other methods, acted more efficaciously on local lesions of the genital organs. Induration and infiltration of the lips resisted the most.

The duration of treatment differed considerably from that which Lewin has indicated; having been, in fact, a mean of 93·7 days, exhibiting, according to the author, the greater gravity of symptoms in the patients treated at Vienna; this duration is neither less nor greater than that of syphilis treated by the friction method. Dr. Grünfeld believes that the method of subcutaneous injection presents the advantage, above all others, of precision of dose. No other method is comparable to it, in rapidity, in surety, nor in the diminution of the chance of relapse. But the pain connected with the treatment, and the possibility of abscess, must be taken into account with the foregoing advantages.

Dr. Grünfeld does not believe that the hypodermic

method will replace the method by inunction; but deems it, however, indicated in all cases where internal treatment, or frictions, are not applicable.

Dr. Stöhr appears to be still less enthusiastic than Dr. Grünfeld. His opinion is based on the treatment of 90 patients, 72 of whom were observed at the clinic of Bamberger, at the Julius Hospital of Wurzburg.

These studies have produced conclusions sufficiently succinctly stated to justify analysis with some detail. The injections should be made with great care, and penetrate in the subcutaneous cellular tissue, and the absorption seems more energetic when the liquid is at the temperature of the body. The greatest care should be bestowed upon the preparation and the instrument employed.

The immediate phenomena are a peculiar pain, acute, and soon ceasing. The part injected rises as a papule of urticaria. After two minutes there is gradually developed a sensation of pain more or less intense, dependent on the chemical action of the sublimate upon the sensitive nerves. This pain is not, as has been ordinarily stated, a mere painful sensation, for the author has seen robust men roll themselves in their bed from agony. Variable phenomena of innervation are presented, such as strong chills, contraction of muscular fibres, dyspnœa, &c. The injection provoked syncope, on two occasions, in hysterical females. This pain endures ordinarily three or four hours. At the centre of the injected points an induration is produced which may persist a long time. In two cases there was formation of abscess, and even denudation of the indurated edges, with a fistulous trait, requiring a treatment of some 6 to 8 weeks.

The general symptoms of absorption of the sublimate are ordinarily well pronounced. Thus, with a dose of a quarter of a grain of sublimate, the patients perceived a metallic taste within half an hour. Feebler doses produced similar effects according to the susceptibility of the individual. When the dose is carried to ½ grain per day, the symptoms of mercurial stomatitis are manifested, and with very marked intensity. The slow stomatitis does not show itself before the third or fourth day, if the dose of a quarter of a grain is employed; the symptoms are more severe at the eighth or ninth day. After the employment of 2 or 2½ grains, the stomatitis is severe enough to demand the suspension of the medication. With the ordinary dose of an eighth of a grain, salivation occurs more slowly.

Gastric troubles may rapidly present themselves with half a grain of sublimate; vomiting often follows the pain in the præcordiæ. Sanguinolent diarrhœa occurred very often from injections of an eighth of a grain, when two grains and a half had been absorbed. The general action is pronounced; patients are easily enfeebled, and resemble, after treatment, convalescents from severe malady. The injections produce a frequency of pulse, and fever, for the temperature may attain 39°5' or 40° centigrade, which is an exceptional fact in syphilitic affections. Dr. Stöhr did not find sufficient advantage in the hypodermic method; the mean duration of treatment having been, for 27 patients treated by injections, twenty-three days, against twenty-five days for 27 patients treated by inunctions. The mean total dose was, as for Lewin, 3 grains of sublimate. The injections, however, acted rapidly in squamous, ulcerous, and pustulous affections. As to relapses, the results were altogether comparable to those from other methods of treatment.

The conclusions of Dr. Stöhr are precise and radical:—that "the employment of subcutaneous injections of sublimate, for the cure of syphilitic lesions, is the most exacting and the least practical method of mercurial treatment which has been proposed."

The method is not at all applicable to the slower manifestations of syphilis; but it is not the same for old rebellious affections, in which the ordinary treatments are powerless; here, the method of Lewin is distinctly indicated. There is special indication equally in certain cases, as iritis, serious ulcerations of the larynx, where it is necessary to obtain a rapid action, and where the serious and extensive cutaneous affection precludes the employment of frictions. With regard to the gummy tumors, syphilis of the bones and periosteum, little special confidence should be placed in the action of hypodermic injections. The injections are contra-indicated in enfeebled and cachectic individuals. Finally, the method cannot be applied to non-sedentary patients.

Such are the principal facts learned in the discussion of this subject. They are of a nature to demand reflection. In presence of a new method of medication, it is not astonishing that opinions should be divided. When passion is not enlisted in the debate, there is nothing to fear in the research for facts which may enlighten opinion. Besides, experiments have been made at the Hôpital du Midi, by M. Liégeois; he has accumulated no less than two hundred observations; and his results are still more beautiful than those of Lewin. It is wise then to await the publication of this extensive experimentation before pronouncing an opinion.* Observers are already occupied in endeavoring to remedy the phenomena of pain and irritation produced by the sublimate. Lewin employs morphia to relieve the pain. To avoid the irritation it may be possible to find a mercurial agent as powerful as sublimate, and at the same time non-irritant. Efforts have been made in this direction. Thus, Dr. Aimé Martin has reported two cases of rebellious tertiary syphilis, treated successfully by injections of the biniodide of mercury combined with iodide of potassium. In these cases success followed with surprising rapidity. In fact, in one case, two injections, with eight days of interval, sufficed to cause the disappearance of alopecia, papules of the hands and feet, deep ulcerations of the mouth, and mucous patches of the anus. Half a gramme of a solution of 4 centigrammes of biniodide of mercury to 1 gramme of distilled water was injected each time. In a second case, lesions equally grave and unsusceptible to mercurial frictions, disappeared in several days under the influence of a single injection.

Dr. Brichetau proposes to replace the sublimate by a preparation of mercury at the same time soluble and non-irritant, the formula of which was composed by M. Bouilhon, pharmaceutist. This solution contains 1·66 gramme of the double iodide of mercury and sodium, to 100 grammes of distilled water.

In conclusion, the question involved is rather to decide the comparative value of the new method, than to establish its efficacy, which is not contested, and which its opponents maintain is distinctly indicated in special cases.

(Brichetau, *Bulletin général de thérapeutique*, 15 Avril, 1869. E. Guntz (analyses), *Schmidt's Jahrbücher*, No. 4, 1869. Grunfeld, *Wiener medizinische Presse*, Nos. 17, 20, 24, 28, 43, 49, 51, 52 (1868,) and 1 (1869). Stöhr. *Deutsches Archiv für Klinisch. Med.*, Mars 25, 1869, V. Bd., 3 and 4 Heft.)

The German Hospital was opened for reception of patients September 13th ult.

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* This article has since appeared in the *Gazette Hebdomadaire*, for July 9, 1869.

STRANGULATED FEMORAL HERNIA.

OPERATION—DEATH FROM ULCERATION OF BOWEL AND FECULENT EXTRAVASATION.

By C. C. LEE, M.D.,

SURGEON TO ST. VINCENT'S HOSPITAL, &c.

As the record of our mistakes is not less instructive, although perhaps less gratifying, than that of success, I am induced to offer the following case for publication:

Rosa B., aged 30, was admitted to St. Vincent's Hospital July 19, with symptoms of strangulated hernia. Upon visiting her at 3 o'clock the same afternoon, the following history of her malady was obtained: For three years she had occasionally suffered from hernia on the left side; but as this was easily reduced it excited no alarm, and she had rarely used a truss, even for a few days. Forty-eight hours before entering the hospital, after doing an unusually hard day's work, the rupture reappeared, and was soon followed by severe umbilical pain and vomiting. The vomiting continued unabated during the following day (18th), but gradually diminished in intensity, and ceased spontaneously about the time of her admission to hospital.

Examination revealed an ovoid tumor occupying the left groin, larger and less pyriform than crural hernia usually appears; the swelling was elastic, tender, and so tense that the course of the bowel could not be traced towards either the femoral or abdominal ring. The vomiting, which had at no time been fecal, had entirely ceased, and the general condition of the patient seemed excellent; pulse 86 and full, with no tympanitis or hiccough, and no tendency to collapse. The bowels had not acted since the beginning of the attack; but the degree of constipation was a matter of surmise only, as no purgatives had been taken.

No definite trial of taxis having been made, it was determined to etherize the patient, and, if practicable, restore the bowel without an operation. This effort was carefully made, but without success, the tension of the inguinal tumor resisting all attempts at manipulation. The propriety of an immediate operation was then considered; but as the patient's general condition was so unexceptionally good, a further trial of palliative treatment was attempted. Opium, diaphoretics, and warm steam baths were administered, with the local application of ice, and further operative interference deferred until the following day.

This was a grave mistake, as the sequel proved. On the following morning the patient's condition seemed no worse—abdomen slightly tympanitic—no return of the vomiting, and the tumor decidedly smaller and more relaxed from the steady application of the ice.

In the afternoon—twenty-four hours after entering the hospital—Dr. Van Buren saw her in consultation, and advised an exploratory incision. This was made in a line parallel with Poupart's ligament, and conterminous with the tumor, which still occupied the whole groin. Before the sac was fairly exposed the hernia was clearly shown to be femoral (a point regarding which I had felt much doubt, as the swelling was rather above than below Poupart's ligament), and the obstruction was recognized as a tight strangulation at the crural ring. Hey's ligament was freely divided, without effect, and after a further division of the fibres of the deep crural arch, the chief constriction was found in some dense fibrous bands stretching across the neck of the sac. Before reduction could be effected the sac had to be opened, giving exit to a large quantity of brown serous liquid; the gut was chocolate-colored, and covered with a filmy layer of recent lymph, but showed no tendency to gangrene. Without drawing it down to inspect the point of constriction, it was now replaced after a little gentle pressure; and on the cessation of the serous drainage from the peritoneal cavity, the wound was closed and secured in the usual manner, the walls of the sac being retained in the wound. Half-grain doses of opium were given every hour until night, with liquid nourishment at longer intervals, and stupes of turpentine and olive oil applied to the abdomen. No untoward symptom occurred until after midnight, when the patient had a slight attack of vomiting, followed by abdominal pain and uneasiness; the latter symptom continued until the following morning, when, without further premonition, she suddenly sank and died from apparent collapse, seventeen hours after the operation.

An autopsy six hours after death revealed local peritonitis, in the primary stage, covering an area of about three inches around the womb; the bowel was slightly adherent to the peritoneum at this point, and all the small intestines were deeply congested. Nearly a pint of serous effusion was found in the abdomen; and, upon gently raising the strangulated portion of the intestine from its position, the cause of the sudden collapse and death was found in a small perforation of the bowel, through which about a gill of fecal matter had escaped into the peritoneal cavity. The bevelled and ragged edges of the ulcer, which was not larger than a pea, corresponded exactly with the purple line indicating the point of greatest constriction by the unyielding fibres of the femoral ring. The body was well nourished, and all the abdominal organs were healthy. No other portion was examined.

Two serious errors were committed in the treatment of this case, and the hope of averting a like misfortune at the hands of others has led me to place it on record.

In the first place, the operation was unnecessarily deferred, and should undoubtedly have been resorted to when the patient was first seen. The cessation of the vomiting and the diminution of the mesogastric pain, together with the absence of all indications of collapse, led to the supposition that the hernia was incarcerated merely, and not actually strangulated. In all such cases, where even a doubt of strangulation exists, it is safer for the patient, and doubtless better surgery, to make an incision at once, and ascertain the condition of the neck of the hernial sheath. Less danger of peritonitis, or damage to the bowel, is thus incurred than by prolonged and repeated efforts at taxis.

Secondly, if strangulation have existed—especially at the femoral ring—for a longer period than twenty-four hours, we should hesitate to return the gut to the abdomen without a careful examination of the constricted portion. As soon as the final incisions are made, this can be done by drawing down the gut until an inch or two more than previously protruded be brought into view. Extreme caution and gentleness are necessary to avoid rupturing or otherwise damaging the bowel; and so great is this danger that many surgeons of distinguished ability condemn the practice. That it is unquestionably the means of saving life, however, in some cases of prolonged strangulation, may be seen from an interesting and carefully-written paper in the current No. (July, 1869) of the *Edinburgh Medical Journal*.

In this report Mr. P. Heron Watson, of Edinburgh, details a case similar in many points to the foregoing—the strangulation having lasted seventy-two hours—in which the operation was conducted with extreme care; but, on gently drawing down the gut, after cutting the constricting portion, a gush of fluid feculence escaped, and a "transverse linear cut" was discovered, which

exactly corresponded with the external portion of the ring. The bowel was puckered up with dressing-forceps and the aperture gently ligatured—the ligature being left to hang out of the edge of the wound, and the potency of the sac secured. On the tenth day some fluid feculent matter escaped on the dressing, but the ligature did not separate until the twentieth day, and on the thirty-fourth the wound was closed and the patient practically well.

In the second edition of his work on Hernia, p. 45, Sir Astley Cooper advises immediate ligation when a small wound has been inflicted on the bowel with the knife; the ligature may be either brought out at the lower angle of the wound or cut short before returning the bowel, as advised by Aston Key and Erichsen. The analogy between this condition and that of the cases narrated is evident. Again, as regards the mooted question of operating *without opening the sac*, the foregoing cases seem to inculcate a useful lesson.

In the MEDICAL RECORD for August 1, 1868, my friend Dr. Erskine Mason has published a number of cases of strangulated hernia, in which the extra-parietal operation was successfully performed. With the exception of a paper by Dr. Sands, in the *New York Medical Times*, this is the only American publication, as far as I am aware, in advocacy of the extra-parietal method. While Dr. Mason's arguments in favor of this procedure, which are ably supported by the cases he narrates, are of unquestionable value, it is equally true that in a large proportion of cases (perhaps the majority submitted to operation) the failure to open the sheath vastly increases the chances of death. Among the most distinguished modern advocates of the extra-parietal operation in England are Aston Key, Mr. Erichsen, and Mr. Luke; but the statistical tables of the latter—quoted with approval by Erichsen—are clearly insufficient to establish so important a point. The most careful summary of the advantages and drawbacks of both methods, with which I am acquainted, is presented by Mr. Birkitt,* and will amply repay perusal. In the case detailed above the sac was opened, because, 1st, the strangulation had lasted so long as to preclude all hope of finding the gut in a fit condition to return; and 2d, because it seemed desirable to afford an outlet for the fluid inflammatory products.

Progress of Medical Science.

MURIATE OF AMMONIA AS AN EMMENAGOGUE.—Dr. Cholmeley (*Practitioner*) is fully satisfied that muriate of ammonia, in a very large number of cases of absent or suppressed menstruation, acts in a very direct and powerful manner in establishing or retaining the flux. He gives the remedy in doses of 10 to 20 grains.

ERGOTINE IN DIARRHŒA AND DYSENTERY.—Dr. Gros, of Germany (*Half Yearly Comp. Med. Science*), recommends *ergotine* in diarrhœa and dysentery. He treated 44 cases of dysentery with it, and had but one death, this being caused by dietetic irregularity on the part of the patient; 25 of the cases were of a mild type. He gives 6 grains in mucilaginous emulsion; and frequently also gives clysters of 12 grains in starch.

In acute diarrhœa the enemata alone are used where it is not desirable to check the discharges too suddenly. Its effect in the chronic diarrhœa of adults and children is favorable; children take the remedy best in the form of dragées.

The clysters are particularly useful as hæmastatics in the bloody dejections of dysentery.

In one case two doses and two clysters were administered—the latter two days subsequent to the former; cure followed within six days; but there was a slow convalescence, owing to unpropitious circumstances.

A NEW SUBSTITUTE FOR PHOSPHORUS IN LUCIFER MATCHES.—Dr. H. Fleck (*Lond. Chem. News*) has substituted sodium for phosphorus in the manufacture of lucifer matches. His idea has been taken up by some of the largest manufacturers of lucifer and fusee matches. There is not the slightest danger in the transport.

FUNCTIONAL VALVULAR DISORDERS OF HEART.—J. M. Da Costa, M.D., Phys. to Penn. Hospital (*Am. Jour. Med. Sciences*), in an interesting paper, styled "Functional Valvular Disorders of Heart," asks if cases of functional valvular disorder ever pass into organic valvular disease? He states that this is a very difficult matter to settle, but believes that it is so. Cases have been seen, few it is true, that had the inconstant murmurs, the examination of which has occupied so large a share of this inquiry, and in which, when encountered after the lapse of time, obvious valvular disease existed. But in every one the enlargement of the heart, which at first was slight, had become a marked feature. Hence, a case might begin with functional valvular disorder attending functional affection of the organ; hypertrophy may follow the functional affection, and, if this becomes marked, valvular diseases may ensue. Such cases have happened, which came under his own observation. Such he believes to be a possible result, and while it is not susceptible of proof—for it may be suggested that the signs of valvular affection were, from the outset, due to a slight but increasing organic lesion—repeated examination of the question, and a careful weighing of the facts, have caused his belief to become a firm conviction. In conclusion, he states, if this sequence be true, how important a lesson it inculcates as to the importance of not neglecting functional affections of the heart; how it teaches us to treat that which if we make light of may pass from a curable into an incurable malady; how markedly it points to the means which will give the agitated organ rest, as alike of value in the present, and as preventive of mischief in the future.

BROMIDE OF POTASSIUM IN TYPHUS FEVER.—Isaac G. Porter, M.D., of New London, Conn. (*Am. Jour. Med. Sciences*), advocates bromide of potassium in combination with sulphate of morphia in solution in the perilous stage of typhus or typhoid fever. That stage so well described by *Graves*, when in the latter part of the disease, "subsultus, long-wakefulness, muttering, raving, delirium, cold perspiration, and involuntary discharges," show exhaustion of the powers of life and approaching dissolution. The condition is atonic, and forbids everything which is in its nature depressant or destructive to the tissues; and yet in such cases it is that, in the absence of a better remedy, the eminent *Graves* recommends the use of antim. et potass. tart. in large doses, with opium.

Few practitioners have the temerity to recommend the use of antimony at a juncture in disease so critical and dangerous as the one referred to. In such cases musk was formerly resorted to, and more recently, camphor and chloroform, taken internally, have been used; but there is reason to believe that the bromide of potassium, in combination, is more safe, effective, and salutary. He says in combination, for it doubtless acts partly by its own powers and partly by modifying

* Holmes' System of Surgery, vol. iv., page 276.

the action of opiates and antispasmodics, the different articles aiding each other in the production of the good result.

He cites cases showing that the effect of the remedy was obvious and triumphant. The bromide of potassium was given in ʒj. doses, combined with sulph. morph. gr. ¼, in solution, on three different occasions, in each case at intervals of three hours.

Sambucus Canadensis in Albuminuria.—Robert McNutt, M.D., of Marshall, Mo. (*Am. Jour. Med. Sciences*), recommends *Sambucus Canadensis* (inner bark of the common elder) in cases of albuminuria not complicated with cirrhosis of the liver or structural lesions of the valves of the heart. Three cases are recorded of its beneficial effect: *Case* I. A married woman, aged 75 years, was suffering from general dropsy, the result of chronic Bright's disease. She had hydrothorax and œdema of the lungs, and was considered to be incurable. A quantity of the inner bark of the common elder was obtained, put into a large bottle, and hard cider poured over it. This preparation was used in ounce doses three or four times daily. In a few days improvement was quite marked, and she convalesced rapidly. She has never been sick since that date (1866) up to the present time, March 16, 1869.

Case II. May 1, 1867, was called to a girl, aged 7 years, who had always enjoyed good health, and was free from any hereditary taint of gout or scrofula. She had never had scarlet fever. Her mother stated that for weeks past she had noticed the child's limbs to have been swollen. Her face was quite puffy, and pitted on pressure. The ordinary diuretics were administered during the following twenty-three days, from the commencement of the illness, with no diminution of the amount of albumen in the urine. At his request, Dr. M. W. Hall, a physician of great reputation in the county, met Dr. McN. in consultation. Dr. H. mentioned the cure of the first case, related above, by the use of hard cider and elder bark, and thought it might be worth while to give it a trial. The bark and hard cider were immediately obtained and regularly administered.

Three days afterwards the albumen was diminished. The remedies were continued nearly three weeks, when scarcely any albumen in the urine could be detected. At the present time the child is perfectly well.

Case III. In the winter of 1868, a girl, aged 11 years, had scarlet fever, and as a sequel, dropsy. When first seen, April 22, 1869, the usual remedies were prescribed. The hot air bath caused diaphoresis, and afforded apparent relief. The urine was tested every day, and the amount of albumen seemed steadily to increase.

May 1. Patient was worse, and he prescribed pulv. ipecac., pulv. gambogia, āā gr. ½; potass. acetat. gr. xx.; syr. scill., spts. æth. nit. āā gtt. xx., to be taken every two hours, unless it purged. Also a tablespoonful or two of the infusion of the elder bark in the hard cider every two hours, with the hot air bath night and morning.

May 4. No albumen was found in the urine; the dropsical effusion had disappeared. The bark and cider was continued for some time. The girl has not been sick since.

The *Sambucus* has not proved to be a hydragogue cathartic and emetic, as laid down in the last edition of the *U. S. Dispensatory*. Dr. Hall says it has caused neither vomiting nor purging in any experiments that he has made with it. This may be owing to the hard cider extracting only certain principles from the bark. In subsequent consultations with Dr. Hall he has expressed the belief that the green bark of the Sambucus is singularly potent in correcting the pathological condition which leads to the development of albuminous nephritis.

Dr. McNutt states that he would now approach a case of albuminuria with as much confidence of curing it by the means used in the cases here given, as he would an ordinary ague by means of sulphate of quinia.

Management of Lupus Erythematosus.—W. H. Geddings, M.D., of Aiken, South Carolina (*Am. Jour. Med. Sciences*), in an extensive paper "On Lupus Erythematosus," coincides with Professor Hebra in the view that *lupus vulgaris* and *lupus erythematosus* are two separate and distinct diseases, in no way connected with each other. He regrets that Prof. H. ever relinquished the name (Sebhorrhœa congestiva) which he first applied to lupus erythematosus.

The fact that lupus erythematosus occasionally gets well of itself, leaving only a flat thin cicatrix, admonishes us to be careful in the selection of remedies, and not to make use of those caustics which produce thick and uneven scars. The first step is to remove the scales, for which purpose stripes of linen soaked in oil should be applied to the diseased surface, over which a piece of flannel should be bound. This application is to remain on until the scales become so soft that they can be rubbed off with ease. Then the following application may be made:—Moisten a piece of flannel with lukewarm water, and lay a small quantity of the soap upon it, and then rub the diseased patch with it until a good lather is formed, after which some of the soap should be spread upon a piece of flannel and laid upon the diseased surface. The frictions are to be repeated daily, reapplying the flannel after each operation. After the third day the treatment should be suspended, and a new epidermis allowed to form. As soon as this has taken place, the part should be well washed with water, to determine whether the new epidermis is healthy. If it stand the washing, the disease may be considered cured; if not, the whole process is to be repeated. This simple treatment will in some few cases effect a cure; but in the majority it will be found necessary to resort to more energetic remedies. Hebra has sometimes effected a cure by cauterizing the part with strong liq. ammonia. It should be applied with a brush made of picked lint. After each application the diseased surface pours out a fluid not unlike that which we see in a case of eczema. The ammonia should be applied daily. Another application is a solution of iodine in glycerine: ℞. Iodini ʒj., Glycerine ʒj., Potass. iodid. ʒss. M. It should be applied 3 or 4 times daily, until a thick brown crust falls off and enables us to see the condition of the skin underneath. Should it be necessary, the caustic should be reapplied. The application of iodine and glycerine is exceedingly painful.

This disease, which is more frequent on women than on men, may be called a rare one. Dr. G. has observed it only twenty times in upwards of 3,500 cases of skin disease; that is, in the proportion of 1 to every 175. This average would appear to be large, as observations in other years show the disease to be much less frequent.

A Caution with Reference to Cases of Chronic Inflammation of the Eye and its Appendages.—Dr. Gilmor Davels, of Portland, Me. (*Am. Jour. Med. Sciences*), states that in all cases of chronic inflammation of the eye and its appendages, the practitioner should see that patients are not in the habit of wetting the hair daily. He believes that chronic inflammation

is kept up by this particular habit. The hair is not dried at once, but a slow evaporation is kept up for hours from the head, chilling all the parts beneath and contiguous.

CARBOLIZED DRY EARTH.—Dr. Derby, of the Boston City Hospital, has of late been treating bad suppurating wounds and severe burns with "carbolized" dry earth—1 part of carbolic acid to 100 of pulverized kiln-dried earth—with the most satisfactory results. Carbolized dry earth, also carbolized bran prepared in the same manner, have also been used by the same surgeon for treating cases of compound fracture, with the effect of maintaining the bones in good position, and obviating the offensive odor so common and objectionable in such cases.

CHLOROSIS.—Dr. Ch. H. Bauer recommends, in the treatment of chlorosis, above all other remedies, the saccharate of iron, prepared after the formula of Karl. He says it is more easily assimilated, does not derange digestion as most chalybeates do. It is a rapid producer of animal heat; the previously cold hands and feet soon become warm, and the lips and gums red under its use.—*Med. and Surg. Reporter.*

CURE FOR OBESITY.—Dr. Gibb, of London, recommends the use of bromide of ammonium to those who suffer from excess of fat. When taken in small doses, it will absorb fat and diminish the weight of the body with greater certainty than any other known remedy. —*Canada Medical Journal.*

MINERAL SPRINGS OF PASO ROBLES, CALIFORNIA.—One imperial gallon of water from these springs contains: Free carb. acid gas, 10.50; sulphate of lime, 3.21; sulphate of potassa, 0.88; sulph. soda, 7.85; peroxide of iron, .36; alumina, .22; silica, .44; bicarb. magnesia, .92; bicarb. soda, 50.74; chloride of sodium, 27.18; organic matter, 1.64. Total solid contents per gallon, 93.44; temperature, 110° F. to 140° F.

E. Malcolm Morse, M.D., of San Francisco, Cal., recommends these springs to patients convalescing from rheumatism, syphilis, or gout, on account of the large quantity of bicarbonate of soda found in the waters, 50.74 grains.—*Cal. Med. Gazette.*

ESMARCH'S IRRIGATOR.—There is a douche in general use in Vienna called "Esmarch's Irrigator." It is designed for washing wounds of all kinds, or wherever a powerful stream of water is required. It is the very perfection of simplicity, is always ready, and cannot get out of order. It consists of a long cylindrical tin pot, at or close to the lower end of which a short pipe issues, to which a long india-rubber tube, provided with a nozzle, is affixed. It is only necessary to fill the tin pot with water, and the douche is ready for use. In this simple contrivance one has a really useful portable fountain. When not in use, the nozzle of the tube is fastened to a hook at the upper end of the tin vessel.—*British Med. Journal.*

A NEW CEPHALOTRIBE.—Dr. Guyon, of the Cochin Hospital, Paris, has invented a new cephalotribe which resembles a pair of strong narrow forceps, and is worked solely by the operator's hand, without the intervention of screws and wrenches or other machinery. It has met with much favor in Paris and Vienna, and is said to answer its purpose admirably.—*British Med. Journal.*

THE MANAGEMENT OF PHTHISIS.—A writer in the *British Med. Journal* says, that the method of treating phthisis by *Cod-liver oil and ether* is well spoken of in Vienna; and he has seen several patients who are gaining weight rapidly under it, and notably one who has gained 7 pounds in 23 days.

CINCHONA IN THE EAST INDIES.—Mr. J. E. Howard (*London Pharm. Journal*), on examination of the different varieties of the cinchona raised in the East Indies, speaks of a variety possessing lanceolate leaves almost approaching in appearance to the *cinchona lancifolia*, the bark differing entirely from the bark of the *lancifolia*, and pertaining more to that of the best species of Petayo or of Loja.

This variety is so extraordinarily rich in quinine that Messrs. Howard & Broughton had obtained from it 10 per cent. of sulphate of quinine.

Mr. H. states that the effect of cultivation is to increase the value of the product. The quantity of cinchonidine is rather larger in East Indian bark than in Peruvian bark. The production of this alkaloid is probably due to the greater warmth and dryness of the atmosphere in the East Indies.

AN IMPORTANT DISCOVERY.—M. Maurice Boncherie, of Paris, lately read an interesting paper before the French Academy of Sciences, extolling the injection of a solution of sulphate of copper into wood, to increase the durability of the latter. The best way to perform it is by displacing the sap and then letting the wood dry in the air. To prove his assertion, M. B. exhibited some railway sleepers laid down in 1847, which were found to be in excellent preservation, and harder than common dry wood. The wood owes its excellence to the combination of oxide of copper with the cellulose of the wood.

CUPRIC salts are now extensively used for telegraphic wire posts.—*Drug. Circular and Chem. Gazette.*

EXSECTION OF THE TRUNK OF THE INFERIOR DENTAL NERVE AND SECOND BRANCH OF FIFTH PAIR OF NERVES, BEYOND MECKEL'S GANGLION, FOR FACIAL NEURALGIA.—Geo. C. Blackman, M.D., Cincinnati, Ohio (*Am. Jour. Med. Sciences*), on January 17th, 1868, removed the entire portion of the inferior dental nerve, from its entrance into the ramus to the mental foramen, from a pregnant woman, æt. 35, mother of six children. The wound healed kindly, and at the end of a week, the patient feeling so well satisfied with the result of the first operation, begged him to perform the other that morning. Accordingly, just seven days after the first exsection, he proceeded to perform Carnochan's operation for the removal of the second branch of the fifth pair beyond Meckel's ganglion. The nerve was of a deep red color, and seemed somewhat enlarged.

There was no disposition to a return of the facial neuralgia. Just one year after the last operation she presented herself at his *clinic*, and could not find language to express her gratitude for the complete immunity from suffering which she had experienced.

OVARIOTOMY, IN WHICH "POCKETING THE PEDICLE" WAS PERFORMED.—J. Ford Prioleau, M.D., Physician to Roper Hospital, Charleston, S. C., publishes a successful case of ovariotomy in the *Am. Jour. Med. Sciences*, in which "Pocketing the Pedicle" was performed as recommended by Prof. H. R. Storer.

In those instances in which the pedicle is of sufficient length to accommodate itself to any condition of the abdomen, this mode of treatment he regards as eminently superior to any heretofore suggested, and thinks that Dr. Storer has "*won an additional laurel to American surgery*".

A REMARKABLE CASE OF FATTY HEART, LIVER, AND KIDNEYS, WITH PARTIAL OCCLUSION OF 24 INCHES OF THE SMALL INTESTINE, AND RENAL CALCULI.—A subject in the Medical College dissecting-room, Mobile, Ala., presented the small intestines in three places contracted

to the diameter of a crow quill, each contraction extending about 8 inches. The heart, liver, and spleen were masses of fatty degeneration. The right kidney was normal in size though completely fatty. The left kidney consisted of a layer of fat about half an inch thick, held together by the proper capsule and some areolar tissue; and within were found three renal calculi. The first weighed 121 grains, the second weighed 76 grains, and the third 27 grains. They were of the oxalate of lime or mulberry variety.

Stillicidium Lacrymarum.—A patient presented himself to Dr. Powers (*California Med. Gazette*) in whom there was no puncture of the lower lid. The upper punctum and canaliculus were patent, as was evident from the comparatively small amount of tears accumulated on the lid; but for two or three years the patient had been subjected to great annoyance from the residuum of the secretion which the upper lid failed to carry off. Thinking that relief would be afforded by opening the canaliculus, this was accordingly done. The sac and nasal duct proved to be open and in a healthy condition, easily admitting the passage of the probe. The difficulty was removed, and the tears flow through their natural channel.

Removal of the Superior Maxillary Nerve, with the Ganglion of Meckel, and the Inferior Maxillary Nerve, for Persistent Facial Neuralgia.— Dr. W. H. Mussey (*Cincinnati Lancet and Observer*) reports a case of this kind. The patient, 32 years old, after long and severe labor, was the subject of great excitability and insomnia, lasting six months; he was then attacked with acute pains, occurring several times a day, but which yielded to quinine. Being subsequently exposed to severe cold, he was again attacked with neuralgia, which continued four or five weeks. He continued to be the subject of these severe attacks, and resorted to all kinds of treatment. The seat of the pain was chiefly in the superior maxilla. To relieve the patient it was decided to remove the superior maxillary nerve and the ganglion of Meckel. This was accordingly done, and convalescence was gradual. About two months after paroxysms of pain occurred in the lower maxilla, which became so severe that it was decided to remove the inferior maxillary nerve. This was accomplished to the relief of the patient.

Incontinence of Urine.—Dr. F. B. Wood was called to visit a patient, 14 years of age, who had been troubled, from early childhood, with incontinence of urine to such a degree that it was passing from the urethra, almost constantly, night and day. The penis had an elongated prepuce which was firmly adherent to the glans penis. Concluding that this condition was the cause of the trouble, circumcision was performed, and the adhesion broken up. The wound healed rapidly, and the incontinence was entirely relieved. The patient can now retain his urine eight or twelve hours without difficulty.—*Cincinnati Lancet and Observer.*

Cancerous Affections Successfully Treated.—Dr. E. A. Kunkler (*Pacific Medical and Surgical Journal*) in an extended article upon this subject, giving several cases which he had treated successfully, draws the following inferences:—1st, Cancerous affections are always the result of irritation, present or past, direct or sympathetic, single or multiple; and no cure can be effected unless the causes, if still present, are ascertained and removed. 2d, Inflammatory action in cancer is the result of irritation; the severity of the first depends upon the intensity of the last; and tonic inflammation will subside with the cessation of the irritation, while atonic inflammation will continue, although the original irritation might have ceased, and consequently atonic inflammation must always be attended to. 3d, Acute inflammation leads to suppuration, chronic inflammation leading to abnormal nutrition and induration of the affected parts, according to the degree of inflammation and the tissues involved. 4th, Scirrhous cancer is an aggravated induration by fibrinous deposits, causing obliteration of blood-vessels in the affected parts, whereby softening and mortification of these parts are occasioned. 5th, Encephaloid, colloid, and the fungoid forms of cancer are the result of various morbid processes involving different tissues and blood-vessels. 6th, The cell formations observed in some carcinomatous affections depend on perverted plasma, in which the cells are floating, from which they imbibe an abnormal nutrition. 7th, The offensive odor in the advanced stage of cancerous affections is the result of the decomposition of the animal tissues, whereby sulphuretted and phosphuretted hydrogen are formed. 8th, The destruction of the tissues in cancer is produced by the effect of these fetid gases, especially by the sulphuretted hydrogen. 9th, To arrest the progress of cancer, the removal of the affected parts is sufficient only when the original irritation has subsided, and there is neither atonic inflammation nor induration in the neighboring parts; but in all the forms of the disease proceeding from internal irritation, and from atonic inflammation and induration, no permanent cure can be expected unless all the pathological conditions are rectified, and the blood brought back to its normal standard.

Extraordinary Recovery from Extensive Saw-Wound of the Skull.—Dr. A. C. Fulsom relates the following:—A man received a dangerous wound of the head from a circular saw, and was seen by him in about half an hour, when he found the condition of things to be as follows:—The wound commenced at the frontal bone, half an inch above the nose, and extended a little to the left and a little below the occipital protuberance, passing through the superior edge of the parietal bone. Measured by the convex surface of the skull, the length of the cut in the bones was nine inches. They fell apart over an inch—the length of the scalp wound being eleven inches. The membranes of the brain, as well as its substance, were divided, the former much lacerated, and the latter falling apart sufficiently to admit a common pocket rule to the depth of one and a half inches, and a small silver probe two inches, before touching the walls of the cut. Thirty-two minute pieces of bone, together with considerable sawdust, were taken from the wound, also a tablespoonful of the substance of the brain. No large arteries were severed, and the patient did not lose over two ounces of blood. The pulsation of the cerebral arteries could be distinctly felt, and there was no congestion of the brain or its membranes. The pulse 72. No pain or undue sensitiveness about the wound. The patient could not tell when the brain, membranes, or walls of the cut were touched, but the scalp was sensitive when handled. The cranial bones were brought in apposition by placing a tourniquet around the head, and gradually tightening it. The scalp wound was brought together by sutures, places being left for the exit of pus. The sutures were removed on the eighth day, and the wound healed by first intention, except at the places purposely left open. There was no cerebral disturbance, and no medicine required. He was dismissed at the end of three weeks, and in five or six weeks from the date of the injury he was again at work in the mill.—*Pacific Medical and Surgical Journal.*

HÆMORRHAGIC MALARIA.—Dr. L. Michel (*N. O. Journal of Medicine*) in an elaborate article describes a disease peculiar to the Southern States, and which was first described in 1867. It is a disease due to malaria, and is ushered in by a chill of the congestion type, followed by high fever, parched mouth, extreme thirst, suffused eyes, restlessness and anxiety, sighing respiration, quick, bounding pulse. During the febrile manifestation nausea and vomiting are extreme. The patient vomits a dark grumous bile. After the nausea has continued five or six or more hours, jaundice and bloody urine show themselves. The suffused eyes now become instantaneously yellow, and the red skin changes to a bronzed yellow. With the hæmaturia we have pain in the back, well defined in the region of the kidneys. The tongue varies in appearance from a pale milky color to a straw color, and skin dark brown. After a time a remission occurs, in which there is a decided abatement in all the symptoms, except the nausea and vomiting. During the remission the skin is frequently less yellow, and the urine becomes clear and limpid, only to reassume its bloody color upon the invasion of the chill. The skin frequently becomes permanently dark-bronzed, and the face, chest, and abdomen studded with profuse hemorrhagica and vibices, and, should a blister be applied, the cuticle will be filled with bloody serum. The bowels are usually constipated, though sometimes there are copious dejections of dark, tarry, feculent matter. The mind is usually clear. It mostly runs its course in from four to twelve days. Autopsies reveal extreme rigor mortis. Muscles very red. A yellow color pervades the brain, chest, and abdominal organs. Stomach filled with dark grumous bile. The spleen much enlarged, and hard and solid. Kidneys enlarged, and presenting the appearance of passing through severe inflammatory action. Treatment best adapted for this disease is, first of all, to give large doses of mercurials, followed by oil, and after the bowels are moved to give large doses of quinine, with capsicum, until the quinine has produced a decided impression. For the hæmaturia, astringents with opium may be given.

CHLORATE OF POTASH IN ABORTION.—Dr. J. S. Lewis (*Med. & Surg. Reporter*) details two cases, and alludes to others, from which he derived the most marked success from the use of chlorate of potash, in three grain-doses, four times a day, in preventing a tendency to abortion. In the one case the woman had aborted twice at seven and a half months, and in the other three times in two and a half months, and in both instances they were seriously threatened with a like misfortune, but were relieved by the above remedy.

TREATMENT OF SUNSTROKE.—Sixteen cases of sunstroke were treated by Dr. Hutchison during 1868. The leading symptoms were extreme jactitation, restlessness, and convulsions. They were treated by hypodermic injections of 1-4 grain of morphia, followed by frictions of ice. All but four recovered. The effect of the morphia was prompt and salutary. In some cases brandy was administered.—*Pacific Med. & Surg. Journal.*

TORSION AND TRANSFIXION AS A MEANS OF ARRESTING ARTERIAL HÆMORRHAGE.—Dr. R. McKinnon suggests (*N. O. Journal of Medicine*) as a means of arresting hæmorrhage, the torsion and transfixion of the artery. Let the bleeding vessel be seized with a pair of torsion forceps and twisted until it assumes a cord shape, so that no blood can pass through the twisted portion, then pass a needle from the cutaneous surface, as recommended by Simpson, in acupressure, and instead of passing the needle over the vessel, have it to transfix the twisted artery, and then pass it into the fleshy parts beyond. The twisted artery is thus made secure against untwisting, and if the torsion is maintained no hæmorrhage can possibly occur. In as short time as it may be deemed necessary for the needle to remain, they should be removed, when all sources of irritation from staunching instruments are got rid of. The tunnel is then placed in the most favorable condition to heal by first intention.

QUININE VERSUS HENS.—Dr. George Colmer had occasion to prescribe quinine for a lady. She made it with flour into pills, the quantity made up being 60 grains. The whole number of pills was swallowed by a hen. For a while after swallowing them the fowl appeared unsteady in her movements, and reeled as if somewhat intoxicated; but in a few minutes was again calling her children, and performing her natural duties as before.—*N. O. Journal of Medicine.*

TANNIN AS A DIURETIC.—M. Dormay records a case of typhoid fever, accompanied by severe tympanitis, which persisted in spite of mild evacuants. He then prescribed tannin, with sulphuric ether and water. The tympanitis yielded to this remedy, and he was surprised at the copious flow of limpid urine from one who had before urinated but seldom and with difficulty. He has since obtained the best results from this prescription in diseases of the kidney in persons of sedentary habits, and in spasmodic paroxysms of nephritic colic, and also in affections of the bladder.—*Bouchardat.*

SCIATICA TREATED BY ACUPUNCTURE.—A gentleman had long suffered from unilateral sciatica, which had proved rebellious to ordinary remedies. Having determined on employing acupuncture, twelve fine needles were selected, which were inserted in the direction of the nerve along the ischio-trochanteric fossa. After stretching the skin tense with the left hand, the needle was seized by the head, and, holding it at an angle of 45°, was passed through the skin in a boring manner about half an inch. All the needles were successively passed and left in place about half an hour, when they were extracted. The patient then rose, and walked with ease and without pain. The cure was radical.—Dr. T. J. Stevens in the *Boston Med. and Surg. Journal.*

LARGE SALIVARY CALCULI.—Dr. H. E. Von Rygersma has removed several salivary calculi from the mouth of a negro man about 50 years old. The first was extracted by a French surgeon, and was the size of a pigeon's egg. Two were as large as Lima beans. The excretory duct of the submaxillary gland is described as completely changed into a bag, and will readily admit a grain of corn.—*Med. and Surg. Reporter.*

CURE OF ACUTE ORCHITIS IN TWENTY-FOUR HOURS.—F. Jordan (*British Med. Journal*) thus describes his treatment of a case of acute orchitis: "A man aged 30 had intense pain, intolerable tenderness, and great swelling and induration in both testicles, and could not stand upright. The scrotum was covered with a solution of nitrate of silver (two drachms to the ounce), a stripe of vesication was established over the upper halves of both femoral arteries by means of liniment of iod, and the testicles supported by cotton wool. He was well in twenty-four hours.

HYDATIDS.—The *Archives Générales de Medicine* contains articles on the frequency of hydatids in Iceland. This disease is very common in this colony from eating

hydatid mutton, pork, and drinking water from ponds which sheep and dogs frequent, and therefore everything connected with it is of the greatest interest. In Iceland, Dr. Leared found that one of every five deaths was from this disease. Dr. Finsen, the author of these articles, learned that, out of 7,539 cases of disease, 280 were suffering from hydatids; and among 56 persons, living in different parts of the country, 13 were affected. There, as in this colony, the liver is the organ most frequently affected—176 times, in 255 cases, the cavity of the abdomen (the origin being uncertain) 54, and the lungs in 7. In this colony, the lungs and the omentum stand next in frequency of liability to the liver. This may be accounted for in two ways—either from their becoming implicated when the upper part of the liver is affected, or from the animal being deposited in them either primarily or secondarily. The gastro-hepatic omentum seems to be the part most liable in the abdomen; but it is often extremely difficult to determine whence the cyst has originated until after death.

In the case of a person of the name of Brown, brother to a stonemason living at Carlton, the cyst presented all the appearance of ascites, and when tapped, eleven quarts of fluid were drawn off. The history of the case seemed to point to the under part of the left lobe of the liver as the place where it originated, but, after death, a cyst not larger than the fist was found in the lower part of the right lobe.

Finsen observes that, in nearly all the cases, he found only one tumor, and that it was rare to find hydatids in the lungs.

He has drawn up a long list of the symptoms which may be experienced during the growth of the cysts; but in this colony there is a frequent absence of symptoms—the person suffering but little in health.

When the cyst is situated in the lungs, and near the large bronchial tubes, there may be cough of a spasmodic nature, but generally, unless it is accompanied with some alteration in the bronchial tubes, or the substance of the lung in its vicinity, there is no expectoration; when situated in the liver, jaundice ensues, if the large biliary ducts are pressed on; when pressing on the stomach, some interference with digestion; and when on the intestines, more or less obstruction. The presence of a smooth, oval, elastic tumor is often the only sign, and there may be but little pain.

There is, however, a symptom which I have noticed in the course of watching a large number of cases, and, when met with, it may be considered as diagnostic that the tumor is hydatid. If the patient is kept for some time without drink, and caused to walk a considerable distance, but not so fast or so far as to cause pain or uneasiness, if the tumor is then measured, it will generally be found somewhat smaller. If he be then placed in a warm bath, the cyst will be found in the course of fifteen or twenty minutes (the more superficial it is the quicker) to enlarge, and it may even attain a considerable size. It is owing to the tendency that the hydatids have to absorb moisture, that patients complain, in this country, in damp weather, of fulness of the cyst, and it then evidently increases in size. If the hydatid is dead, there will be little or no alteration.

THE PONS VAROLII THE NERVOUS CENTRE OF GENERAL CONVULSIONS.—H. Nothnagel (*Virchow's Archives*) arrives at the following conclusions in regard to the *nervous centre of general convulsions*, which are derived from actual experiments. The centre of general convulsions is situated in the substance of the pons. Its lower boundary is corresponding to a section at the height of the inferior border of the pons. The faculty to perform the function of a centre of spasms is to be denied to the substance of the medulla oblongata.

Finally, he endeavors to prove that the spasms are produced by way of reflex. In some instances the section of the medulla oblongata had been made below the pons, the animals remaining absolutely quiet. Again: the convulsions occurred if the section had left a portion of the pons connected with the medulla oblongata, showing the centre of action to be situated outside of the medulla.

At last the anatomical condition of the region of spasms is confirmatory to the view of reflex action. The region nearly corresponds to the situation of the gray nuclei and root-fibres of the sensitive cranial nerves. While the nuclei and root of the motor cranial nerves are near the raphe, those of the sensitive nerves are more lateral. The root-fibres of the portio major trigemini, in particular, descend, according to Schroeder von der Kolk, through the whole length of the medulla. This anatomical condition, it must be conceded, is no direct proof of a reflex action, but it renders it admissible and plausible.

From all this it seems that the convulsions following the injury of a defined region on the floor of the fourth ventricle are to be explained as spasms induced by reflex action.

REMARKABLE CASE OF CATALEPSY OF FIFTY-FOUR DAYS' DURATION.—The *Presse Médicale Belge* narrates the following:—A stout girl, aged twenty, menstruating since sixteen years of age, but suffering at each period severe abdominal pain, with a scanty flow. When seventeen years of age she got a convulsive attack, which lasted eight days; since that date she frequently suffered from similar attacks, which, however, only lasted about a quarter of an hour. On the 24th December, 1868, being accused of a theft, she threw herself into a river, from which she was soon extricated, and restored with much difficulty. She had fits of trembling, violent movements of the limbs, sighing, and distress; she attempted, when asked, to show her tongue, but could not; the pharyngeal muscles were paralysed. On the next day loss of consciousness was complete; the jerking of the limbs continued; twitching of the facial muscles; respiration very feeble; pulse rapid; urine passed involuntarily; the eyes often remained open for two or three hours without winking; the temperature was 30° R., and the pulse as high as 130. In this condition she remained seven weeks. The face was without the least expression, the eyes were open for hours, and the whole muscular system was relaxed, the limbs remaining in whatever attitude they were placed, and the mouth open till closed by the bystander. Fainting fits came on, and the temperature of the body fell so as to simulate death—at one time she was absolutely thought dead. After the eighth week spent in this condition, she suddenly revived, and gradually was restored to health, and declared that she was perfectly unconscious of the immersion, and of her having remained for so long a period in this insensible state.

OSSEOUS REGENERATION OF STERNUM.—Dr. Enrico Bottino communicates to the *Annali Universali di Medicina* the particulars of the case of a soldier, æt. 30, wounded in the superior region of the sternum during the Italian campaign of 1866. The ball lodged, producing caries, necessitating an operation for its removal which exposed the pleural sac, the osseous walls of the sternum having been gradually absorbed, and a prompt recovery ensued, and new osseous tissue was formed analogous in resistance to the touch, to the rest of the sternum.

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THE PHYSICIAN AS A BUSINESS MAN.

THE physician, generally speaking, is a very poor business man. Not only must he himself be aware of this fact, but he is every now and again made conscious of it by outsiders. The fact is accounted for, in a measure at least, by the very nature of the services which he renders to the community. They cannot be classed with the commodities that are salable, and in the abstract must of necessity be considered above price. But admitting all this, there is no argument against an attempt on the part of our patients to remunerate services in the shape of an honorarium. The necessities of our position as a profession, where almost all are compelled to rely upon it as a means of livelihood, demand a suitable pecuniary return. If all who belong to our craft were in circumstances that would place them above receiving any acknowledgment whatever, we should most willingly give our advice gratis. This was the custom among the Roman physicians, and it was doubtless due to it that medicine took the high rank of a sacred calling. We would that it were always so, but alas! "Times have changed," and the doctor of the nineteenth century, while he is ready to uphold the noble, almost holy, character of his calling, must eat and live as ordinary mortals, and must have the money with which to do it. This necessity is so fully recognized that we need not pursue this part of our subject any farther.

The custom of the present day has sanctioned the propriety of making as much money in the practice of our profession as is consistent with the circumstances of our patients. We have before taken occasion to recommend that the maximum charges for professional services should be high. This must not be understood as in any way tending to encourage mercenary motives, but solely in the light of obtaining a reasonable acknowledgment for very valuable services. If we firmly insist upon this, and properly graduate our charges in accordance with the means of our patients, we can be sure of a decent competency.

As each case must be treated upon its own peculiar merits, it is very apparent that no absolute tariff can be fixed upon that shall be an invariable guide, but we should endeavor in ordinary cases to settle upon some approximative standard that shall govern the practice of a particular vicinity. This is just both to our patients and ourselves, as a mutual understanding as to pecuniary matters is thereby established. In reference to this point the Code of Ethics makes the following wise provision:—"Some general rules should be adopted by the faculty in every town or district, relative to pecuniary acknowledgments from their patients; and it should be deemed a point of honor to adhere to these rules with as much uniformity as varying circumstances will admit." For the sake of mutual protection no departure should be made from such rules in the shape of underbidding, which we are sorry to say is carried on in many country towns to a rather alarming degree. In attendance upon ordinary cases there can be no great difficulty in settling upon a given rate of charge, and, if we must fall below the established standard, it should be in favor of the poor only.

The practice of the healing art may be divided into ordinary and extraordinary, and the rates of charges should be in proportion. The ordinary practice is that already alluded to, while the extraordinary implies the possession of an extra amount of skill. Bearing upon this particular question we quote the following from the recent work of Prof. Ordronaux: * "The law sets no limitation to fees, provided they be reasonable. Within this rule a professional practitioner is allowed discretionary powers, and may charge more or less according to the estimate of the value of his services. No one will pretend to assert that all services are of equal value, and no one will claim that those who can render them the most skilfully should receive only the same reward as those who can render them the least so. There is a diversity of rank and talent even among masters, and every man should be rewarded according to the degree of perfection in his own art. While all physicians are required and do impliedly possess that measure of skill which is sufficient for all the necessities of their profession, some are better able to meet its varying requirements and contingencies than others, and their services, as increasing the prospects of a more speedy and certain recovery in the patient, become proportionably more valuable. Such men have corresponding rights to larger fees, and the law will uphold them in asserting them whenever disputed." Says Mr. Willcocks: "A medical man of great eminence may be considered reasonably entitled to a larger recompense than one who has not equal practice, after it has been publicly understood that he expects a larger fee, inasmuch as the party applying to him must be taken to have employed him with a knowledge of this circumstance."

In both the ordinary and extraordinary practice there need be no great difficulty in fixing upon an approximative standard of charges, and of adhering to it as

* The Jurisprudence of Medicine in its Relation to the Law of Contracts, Torts and Evidence. 1869. pp. 44.

business men. There is nothing that prejudices us in the eyes of our patrons so much as the loose manner in which we keep our accounts with them. With too many there is no standard of charging whatever, even for ordinary cases, and both the patient and the physician are placed in a disagreeable relation to each other. We are aware that no two cases are exactly alike, but that of itself does not do away with the necessity of specific and well regulated fees. No matter what ideas we as a profession may have of the absolute value of our services—that they are, so to speak, above price—the patient, who is to pay the bill, naturally expects it to be made out as any other bill would be. The fashion of "lumping the bill" for the sake of an even number of dollars, which is so fashionable, is far from being a true business arrangement, and is as detrimental to our interests as to the patient's. We are now speaking only of the ordinary cases, as they occur in general practice, and not of capital operations, which are generally charged for in round sums. If a physician has made to a case of scarlet fever so many visits, at so much per visit, it should be so stated and the whole amount given, extra services being mentioned and charged for in proportion. We are convinced that in the long run the practitioner would be the gainer pecuniarily, while the patient would at the same time be better satisfied.

The law presumes that this should be so. Again in this connection we take occasion to quote from Prof. Ordronaux's excellent work on Medical Jurisprudence:

"The physician's account should be specific and not general in its charges. It should recite the number of visits and their date, and correspond in this particular with his account books. Hence a claim for '$13 for medicine and attendance on one of the General's daughters in curing the whooping-cough,' which was sought to be enforced at law, was held to be bad because too loose to sustain an action. But the original entries in the books of a physician are evidence for him, in actions for the recovery of his medical services, of the items of his account for medicines administered and furnished to his patients in the course of his practice, although the value of the medicines as well as of the active services rendered must be otherwise proved."

It is the want of attention to little things in money matters that keeps many physicians poor, for in rounding up an account in even numbers he is more apt to be the loser than his patient. If a given number of visits are made, each one should be paid for by the patient; they are given with that intent by the physician, and he should not, in justice to himself as a man of business, neglect to charge for each and every one, when the time comes. Exceptions to this rule can always be made in favor of such who from peculiar circumstances are unable to pay all. The exact bill should, however, be given, and then the necessary deduction to suit the exigencies of the case be made. In this connection we may remark that while we are charitable to all, and willingly give our services to the poor, we should not refuse to take small acknowledgments from such as can only pay to a certain amount. We are speaking of the profession now as a business, as we must necessarily consider it when speaking of it in this nineteenth century in connection with its pecuniary rewards. The practice is a bad one to refuse everything below a certain sum. We thus become insultingly patronizing to the poor patient who desires to discharge a part of his debt of gratitude to us, and we at the same time thoughtlessly create in his mind the impression that after all the charges for professional services are fanciful, and that they are consequently, in the main, valueless.

Our bills should be rendered at stated intervals. If a patient desires to settle his account at the termination of our attendance, it is not good policy to make it appear to him that it would not then be convenient to receive it. Generally speaking, no accounts should be left unsettled six months after the termination of the services. The practice of presenting bills at the end of a year may do well enough for those who enjoy exclusively the patronage of the rich, but will not answer for the young practitioner. For him a good fee may be well enough in prospective, but if he has oftentimes to wait until it is courteous to present his bill, he may starve before the happy time comes.

There is no good reason why physicians should not look to their pecuniary interests. No other profession labors harder and is more ready to sacrifice comfort for the good of those who employ them, and consequently none should be better entitled to the reward. A decent competence is after all one of the really desirable things to a hard-worked doctor, for in its possession he can have many of those comforts, even luxuries, which his station in life demands. We contend that this can best be attained by cultivating business habits, and profiting by them to that extent that will enable us to get our just dues.

A MISSIONARY of the Mahratta Mission, in India, writes: "Have not the friends of homœopathy a great and a glorious field for Christian benevolence in India? Would the establishing of one Homœopathic Medical Mission School, by way of experiment, be too great an undertaking? If a competent person could be found, and one also who could go out approved by the Prudential Committee of the American Board, it would, doubtless, gladly make an appropriation to help such an institution. The subject of the establishment of a *Homœopathic Medical Mission School*, in connection with the Mahratta Mission, is most earnestly commended to the consideration of homœopathic physicians."

This missionary, writing to the *New England Medical Gazette*, must be aware that Rev. Edward Chester, M.D., formerly from New York City, and other noble and devoted medical missionaries, have prescribed for thousands of patients, during the last ten years, in the Dispensaries established in India by their enterprise and zeal. A short time since the British Government do-

nated a splendid set of surgical instruments to Dr. Chester. His American friends, connected with the American Board, also recently paid off a debt contracted by Dr. Chester while completing his medical education and establishing the Dispensary which is under his care. The American and British Boards of Commissioners for Foreign Missions have enough to do in disseminating Christianity in foreign parts—with their present depleted treasuries—without incurring the expense of maintaining homœopathic medical mission schools.

Reports of Societies.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

(Abstract continued from last number.)

STATED REUNIONS.

NOV. 27, 1868.—DR. E. L. KEYES read a paper upon *The Arthritic Diathesis in its Relation to Diseases of the Skin* (*Medical Gazette*, Nos. 62, 63, 64), explaining at some length M. Bazins' "Arthritides;" giving his reasons for the establishment of such a class of cutaneous affections; and concluding that time would prove it to have a substantial basis, though doubtless modifying, in many particulars, the doctrines of its enthusiastic originator.

DR. LEMERCIER was introduced, and gave a very interesting demonstration of the structure of the brain by means of his "clastic models."

DEC. 1 (Annual Meeting).—The following officers were elected: *President*, Dr. Isaac E. Taylor; *First Vice-President*, Dr. S. T. Hubbard; *Second Vice-President*, Dr. J. E. Underhill; *Recording Secretary*, Dr. F. A. Burrall; *Corresponding Secretary*, Dr. E. Noeggerath; *Treasurer*, Dr. H. P. Farnham; *Librarian*, Dr. A. E. M. Purdy; *Trustees for three years*, Drs. Gurdon Buck, B. Fordyce Barker, E. R. Peaslee, B. I. Raphael, and G. M. Smith; *Trustee to fill vacancy*, Dr. A. C. Post.

The annual reports were received.

DEC. 4.—DR. H. P. DEWEES read an extended paper upon *Tetanus* (*Medical Gazette*, No. 63), taking, as the text of his remarks, the case related by Dr. Whitehead at the meeting of Oct. 16th, to which he had been called in consultation. He was inclined to regard nearly all cases of true tetanus as traumatic in origin, though the injury might be long past, and perhaps forgotten. Dependent probably upon a somatic poison, generated in the wound, the tetanic seizure might not take place until after a long period of incubation, as in hydrophobia. There was no doubt, however, that endemic influences might act as predisposing causes. The doctor dwelt upon the probable pathology of the disease, and its pathological anatomy as revealed by the microscope. In its therapeusis, the continuous current had of late taken an important place. In his own experience, this had commonly relaxed the spasms, only to allow their return with added severity; till finally "the anaconda spasm of tetanus" would fix every muscle of respiration with the rigidity of iron, cramp the heart, and not leave its hold of the patient till life was extinct. If the constant current was to be applied in these cases, it should be done as early as possible, and at first to the seat of injury, in order to decompose the materies morbi collecting there. The decomposing action of the current was as important as that of relaxing spasm. Its relaxing effect he had made use of, with great success, as early as 1846. The *rationale* lay in its producing "recuperation of equilibrium in the nervous centres." In flexor spasm the current would pass by preference through the extensors, and *vice versâ*.

DR. WHITEHEAD said that Dr. Nott had seen several cases of spontaneous recovery. In some cases rubbing the patient gave great relief. In employing toxic remedies, such as woorara, in connection with the constant current, it was important to bear in mind how much this stimulates absorption; else you might cure the disease and kill your patient.

DR. BURRALL stated that woorara was given in a case of tetanus in Bellevue Hospital, in 1858, under the direction of Dr. John Crane; and he thought this was the first instance of its use in this country. The dose was quite small, so that it did not kill the patient; neither did it relax the spasm.

DR. GARRISH related a case of tetanus in a girl who had run a nail through her foot. Trismus appeared on the second day; on the next there was complete tetanic spasm; and a consultation pronounced the case incurable. He began giving five-grain doses of assafœtida every two hours, nourishing the patient by the rectum. At the expiration of ten days the muscles began to relax. The girl recovered, and was now the mother of several children. Dr. John Watson, then attending physician to the City Hospital, had cured two out of six cases with this drug.

DR. J. C. SMITH referred to the case of a stout Irishman who had tetanus at Bellevue Hospital some eight years ago, and recovered under very large doses of whiskey, given by direction of Dr. Alonzo Clark.

DR. POST said that Dr. Mott used to relate a traumatic case cured by very large doses of oil of turpentine; but the patient had nearly died of enteritis.

DR. NEFTEL thought that the prevalent impression that tetanus was incurable had led to its neglect. Out of 363 cases in the late war, 336 died. Still he was convinced that we had now at our command the means of curing the disease in every case. The experiments of Nobili and Matteucci, who cured the convulsions of frogs by the continuous current, had been repeated by a later observer with unvarying success. And the transition from these cases to tetanus in the human subject was not left to analogy and theory alone. Two cases had lately been reported in the Berlin *Clin. Med Wochenschr.*—one of traumatic, and one of so-called idiopathic, tetanus,—both cured by the continuous current. It was supposed that the constant current arrested convulsions by diminishing the reflex irritability of the cord. The brain and cord would be acted upon by a very weak current, that could be used with perfect safety. Again, there was probably another means of curing tetanus, that of maintaining artificial respiration. (See Dr. Neftel's remarks on Dr. Peters' paper, Nov. 6.) As to the cause of death in this disease, although it often happened from asphyxia, yet, apart from this, there was an increase of the bodily temperature to a point incompatible with life.

DR. DEWEES remarked that to effect artificial respiration in a tetanic patient held by what he had termed "the anaconda spasm," was simply impossible. In his view the great danger in tetanus arose from the fixation of the muscles of respiration, so that, as he had said in his paper, tracheotomy would be useless.

DR. POST spoke of the frequency of tetanus at the eastern extremity of Long Island. He understood that some of the domestic animals there suffered from it. Two causes had been suggested—one that it was

due to the extensive use of fish for manure, filling the air of that region with the odor of putrefaction; the other, that it was dependent in some way on the constant intermarriages between the same families.

Dr C. F. Taylor had been told that the tetanus endemic in that region was confined to quite narrow limits, and that it was most rife in summer and autumn, when, if any of the residents received an injury, they deemed it prudent to leave the place for a time.

Dr. Farnham and Dr. Dewees said that the same endemic tendency was noticed in many other places where fish was used for manure—on Staten Island, for example.

Dr. Carroll had spent many summers on Long Island, and thought this tendency prevailed along its whole south shore. It seemed to have been favorably modified by the law forbidding the use of fish as manure. All the cases he had seen were traumatic, chiefly among boatmen who had cut their feet with oyster-shells.

Dr. I. E. Taylor remarked that Sir Benjamin Brodie denied the existence of idiopathic tetanus.

Dr. Carroll related a fatal case that appeared to be purely idiopathic.

Dr. Post had attended a similar one; but doubtless many of the so-called idiopathic cases were merely hysterical.

Dr. Dewees remarked, as an important diagnostic point, that while in tetanoid cases you may often have disturbance of the intellect, you do not get this in true tetanus until towards the close, from uræmia and exhaustion.

Dr. Peaslee had supposed that the fact that tetanus may be idiopathic was long since established. Fifteen years ago he had a case of typhoid fever, which showed nothing remarkable till tetanus set in, fatal in two days; mind perfectly clear. He had heard that the Long Island tetanus was often idiopathic, and commonly easy to cure, yielding readily to stimulants. He thought we should not call a case traumatic unless there had been a scratch within a month.

Dr. Dewees said that in one of the worst cases of hydrophobia he had ever seen, the disease lay dormant two years and a quarter; and yet during the attack the wounded spot began to ulcerate. Look at syphilis.

Dr. O. A. White, in a large experience at the South, had found idiopathic tetanus more preavalent upon the sea-shore than inland, and more among the negroes than the whites. The negroes were very fond of fish.

Dec. 11.—Dr. L. Weber read a *resumé* of the history of *Acupressure*, with an account of its various methods and a statement of the arguments in its support (Med. Record, Jan. 1, 1869, vol. iii., p. 485).

Dr. Weisse, in a visit to Scotland the previous summer, had found Simpson and the Aberdeen surgeons using acupressure exclusively in all operations and all incised wounds. Mr. Pirrie had told him that, in Aberdeen alone, some two thousand vessels had been stopped by these means. On the other hand, Syme, Lister, and their followers, were twisting all their arteries; and the warmth of the contest between the two parties had prevented either from giving the other's plan a fair trial. Among other instances of torsion, Dr. Weisse had seen the femoral thus successfully stopped by Mr. Lister—the first case in which he had twisted this artery in an adult subject. The vessel was seized about one-fourth of an inch above its cut extremity with one pair of forceps, and with another pair the part below was twisted until it became a firm, impervious cord.

In Aberdeen the fourth method of acupressure and the Aberdeen twist were being employed for almost all cases; except those to which the first method was conveniently applicable, when the artery could be compressed against a bone. In some instances, the vessel was compressed between the needle and a pad placed upon the skin. Mr. Pirrie had abandoned the needles, and was using the long pins exclusively. Specimens of these were shown, varying in length from two and three-fourths to four inches, mostly gilded, and having heads of different colors, to distinguish them, where several were required. It was surprising how slight pressure was needed to occlude even a large artery, as shown not only by these experiments, but also by those of Dr. Howard with the loose ligature.

Dr. Carroll had found as much suppuration after the torsion of a number of small arteries as after ligature.

Dr. Weisse said that Mr. Lister always excluded the air, and prevented suppuration, by his carbolic acid dressing.

Dr. Stein thought the exclusion of the air the great thing, and that Richardson's styptic collod was quite as effective as Lister's putty in securing primary union.

Drs. Taylor and Keyes referred to Maisonneuve's plan of encasing stumps in rubber sacks, and then exhausting the air.

Dec. 18.—Dr. Austin Flint read a paper on *The Mechanism of the Crepitant and the Subcrepitant Râle* (*N. Y. Med. Jour.*, Feb., 1869, vol. viii., p. 449). He showed that these râles could be perfectly imitated by means of the article known as "patent india-rubber sponge," lately introduced. Compressing the sponge and letting it expand near the ear—dry for the crepitant, and moist for the subcrepitant, râle—the latter would be heard during both compression and expansion, the former during expansion only. This illustrated the true theory of the crepitant râle, that it is caused by the sudden separation of coherent surfaces, and not by bubbling—an explanation first propounded by Dr. Edson Carr, of Canandaigua, N. Y., in 1842 (*Am. Jour. Med. Sci.*, Oct., 1842, p. 360). The history of opinion upon this subject, from the time of Laënnec to the present, was reviewed; showing that most authorities still adhered to the "bubbling" theory, though a few had adopted Carr's explanation without giving him credit for priority. The important points of this valuable paper were summarized in conclusion, as follows:

"1. The crepitant râle is caused by the separation of the walls of the air-vesicles and bronchioles, in the manner explained by the late Dr. Edson Carr.

"2. It is highly probable that the peculiar ('vesicular') quality pertaining to the inspiratory sound in the healthy murmur of respiration is due to the same cause, the cohesion of the walls of the air-vesicles and bronchioles not being sufficient to give rise to the crepitant râle.

"3. The subcrepitant râle is caused by the bubbling of liquid in the minute bronchial tubes, and also in the air-vesicles and bronchioles.

"4. The essential distinctive character of the crepitant râle is its dryness. The term 'dry crackling' expresses this character, whereas the phrase 'fine bubbling' expresses the character of the sound in the subcrepitant râle. In addition, the crepitant râle is not produced in expiration as well as in inspiration.

"5. Very fine bubbling due to liquid in air-vesicles and bronchioles resembles the fine crackling sound which characterizes the crepitant râle; and the discrimination of the former from the latter requires a nice perception

of differences in sound, and some practice in comparing the two râles. The artificial production of the two râles [by means of the 'rubber-sponge'] may be made highly useful by affording this practice.

"6. The crepitant and the subcrepitant râle are not infrequently found in combination. They are likely to be conjoined whenever the air-vesicles and bronchioles contain liquid of any kind.

"7. In view of the fact that for the artificial production of the crepitant râle no liquid is necessary, and in view of the fact that for the production of fine bubbling sounds an extremely small amount of liquid only is required, wherever in disease a crepitant râle exists, without the co-existence of the subcrepitant râle, it is probable that there is a morbid adhesiveness of the inner surface of the air-vesicles and bronchioles, without the presence of an appreciable amount of liquid. Hence, in the cases in which the crepitant râle exists alone, either in the first stage of pneumonia or in the resolving stage, the morbid product within the air-vesicles and bronchioles must be either a glutinous matter sufficient to give adhesiveness to the walls but not enough for bubbling, or the product is a semi-solid, in which bubbles are not readily produced; and in cases of œdema of the lungs, or when blood is present in the air-vesicles and bronchioles, the crepitant râle can hardly be expected to occur without being associated with the subcrepitant.

"8. The characters of the subcrepitant râle are materially the same, although the bubbling is produced in liquids differing as regards consistence."

Dr Jacobi read extracts from Wintrich, Skoda, and others, showing that the claims of Carr had been recognized by these German authors, if not by those who had copied them.

Dr. Hamilton.—I have listened to this paper with great interest, especially because I was personally acquainted with Dr. Carr. I remember that on my first introduction to him, in 1841, this very subject was the one uppermost in his mind, and he early called my attention to it. Dr. Carr was then a physician in large practice in Canandaigua; but although a very active practitioner, he was a most devoted student of medicine and surgery all his life; and he excelled not in their minor departments alone, but in their higher walks as well. Dr. Post may remember that he invented one of the best instruments for staphylorraphy, which he himself employed with great success.

Jan. 8, 1869.—Dr. H. B. Sands read an important paper *On the Distal Operation for Aneurism of the Innominata, with Report of a Case Successfully Treated by Simultaneous Ligature of the Carotid and Subclavian* (Med. Record, Feb. 1, 1869, vol. iii., p. 531), exhibiting the patient so treated.

Dr. B. Howard would refer to two points,—the manner of applying a ligature for aneurism, and the quality of the ligature applied.

It was admitted by all, that it was unnecessary to have complete occlusion of the artery, whether on the cardiac or on the distal side of an aneurism, to effect a cure. This was proved by the fact that cures frequently result from treatment by compression, which should, of course, be preferred where it will suffice. If the ligature were applied so tightly as to close the canal of the artery, it would probably result, as Dr. Sands had remarked, in the speedy formation of a clot, partly but not chiefly fibrinous, which would readily disintegrate and substitute an abscess for the aneurism. But if it were applied so as to close the artery only as nearly as in ordinary compression, the little blood continuing to pass through the sac would impinge upon its surface opposite to the point of entrance, establishing a circular current around its interior, and affording the best conditions for the deposit of concentric laminæ of fibrin to effect its permanent consolidation. Moreover, in a case of idiopathic aneurism, we might be pretty sure that the artery in the vicinity of the tumor was unhealthy. If, under these conditions, we applied a ligature according to the directions of the books, so as to cause rupture of two out of three of the diseased coats, leaving but one intact, ought we not to expect from this itself a fatal result?

But if we applied a ligature loosely, and at the same time of such a quality that it must come away by ulceration, we should be almost certain to have this occur at a time when secondary hæmorrhage would follow. If, on the other hand, the ligature were of innocuous material, and loosely applied, then neither was any damage done to the artery at the time of its application, nor would any harm result from its remaining *in situ*, which it might do for an indefinite time.

Dr. Howard here presented the carotid arteries of a sheep, to which he had, more than a year previous, applied silver-wire ligatures so as to diminish by two-thirds the calibre of the vessels. The animal had been killed, and the specimens dissected, within a few days past. The ligatures were found just where they had been placed. The arteries were closely consolidated, and for a longer distance than after a silk ligature. The wounds had healed by first intention.

Dr. J. C. Peters spoke of the value of iodide of potassium in the treatment of aneurism. It had been used by Edinburgh surgeons in several cases, with the effect of greatly diminishing the size of the aneurism and greatly relieving the patients' sufferings.

Dr. Messenger had, a few years since, gained much benefit from iodide of potassium in a case of very large aneurism of the aorta. The man suffered terribly from dyspnœa, pain, and very severe cough. The iodide, in doses of five to twenty grains in the twenty-four hours, gave great relief, and probably prolonged his life some two years.

Dr. A. B. Crosby referred to a cure of innominate aneurism by his father, Dr. Dixi Crosby, of New Hampshire. The man was kept in a half-sitting posture, perfectly quiet; told to eat as little as possible, and especially to avoid meats and stimulating food; and put upon digitalis. In three months he had recovered so as to resume his usual mode of life.

Dr. H. Knapp had observed, in a case of carotid aneurism, cerebral symptoms on the corresponding side, and trouble in both eyes. The aneurism was very small, and the cerebral affection had not been ascribed to it. But he discovered embolism in the eye, and then seeking its origin, found the aneurismal bruit just over the root of the carotid.

Jan. 15.—Dr. D. H. Goodwillie read a paper upon *Anæsthetics and their Administration*, entering into details of chemical composition, mode of preparation, etc., of the various anæsthetics; comparing the effects of the three most commonly used—chloroform, sulphuric æther, and nitrous oxide; and giving results of experiments with the bichloride of methylene and the tetrachloride of carbon, specimens of which were shown. He exhibited also his graduated inhaler, figured and described in Med. Record, vol. ii., p. 453.

Drs. C. F. Taylor, Farnham, and others related their experience of nitrous oxide.

Dr. J. C. Smith had experimented upon himself with kerosolene, some seven years ago, when it was first brought forward as an anæsthetic; and had found it terrifically exciting.

Dr. Neftel had seen Richardson's first experiments with the bichloride of methylene, and had seen several operations performed under it by Mr. Spencer Wells, the anæsthetic being given by Dr. Richardson. His impression with regard to it was most favorable. It produced neither the convulsions before anæsthesia nor the vomiting after it, which were apt to attend other anæsthetics; nor did it interfere, like them, with the regularity of respiration.

Dr. Underhill related a case in which, after complete anæsthesia by chloroform, Dr. Howard had applied his method of artificial respiration, with the effect of restoring the patient almost instantly to consciousness.

Dr. Burrall called attention to a new method of artificial respiration described in the *Lancet* of Dec. 19, 1868.

Dr. Wm. B. Lewis read a paper on *The Sulphites of Soda in the Urine* (Med. Record, Mar. 15, 1869, vol. iv., p. 30).

Dr. C. F. Taylor presented an *apparatus for talipes*, to be applied soon after birth, for the correction of the deformity without operation.

Jan. 22.—Dr. H Knapp made extended remarks upon *Embolism Within the Eye*, illustrating them by numerous blackboard drawings. An abstract without the aid of such illustrations would fail of doing justice to the speaker or his subject.

Jan. 29.—Dr. Jerome C. Smith read a carefully prepared *résumé* of the American contributions, made within the year past, to the literature of *Insanity*.

Feb. 5.—Dr. A. B. Crosby read a paper upon *The Significance of Pain.*

Feb. 12.—Dr. Chas. F. Taylor made remarks upon the *Differential Diagnosis in Disease of the Spine* (*N. Y. Med. Jour.*, *May*, 1869), exhibiting cases and specimens.

The diagnosis of Pott's disease in its early stages, before the occurrence of deformity, is of the greatest importance; but the books are almost silent upon its symptoms at this period. The prevalent ignorance of these is the more deplorable, since in its early stages the disease is amenable to treatment and commonly curable, while later it may baffle all our skill, and go on to progressively increasing deformity or death. The speaker based his remarks upon ten years' experience in the treatment of this affection, the last three years showing 382 recorded cases, all under observation for a length of time.

It cannot be too strongly insisted on "that the deformity is not the disease," which must have existed long enough to cause some destruction of the bodies of the vertebræ, and the intervertebral cartilages, before the deformity can occur. This commonly requires several months and sometimes years. Only in rare cases is the progress of the affection so rapid as to produce such destruction within a few weeks after the receipt of the injury, to which, in a vast majority of instances, the origin of the trouble can be traced. Commonly the early symptoms are not connected, either by the patient or by his physician, with spinal disease; and if, as in a case related, such disease be suspected, and the patient be put under the appropriate treatment, the symptoms will probably disappear in a short time; the parents or friends will very likely regard the case as cured; and, unless immediately under the eye of the physician, may discontinue the treatment, with the result of a violent relapse and hopeless deformity.

What are the symptoms which attend the inception of the disease?

One of the most persistent is pain in front on a line with the affected vertebræ. If the disease be in the lumbar or lower dorsal region, there will be pains referred to the stomach and bowels, occurring in paroxysms, soon forgotten, and very likely charged to dyspepsia or to worms. If higher in the dorsal region, or in the lower cervical, there are pains in the chest, and a peculiar cut-off respiration, as if eversion of the ribs were arrested at a certain point (sometimes falsely attributed to asthma), with, perhaps, a hacking cough, or hiccough.

The pains are not always in front; they may be in the side; and generally they take one place, and persistently recur there. As the disease progresses these pains are apt to diminish or to pass away entirely. There may also be pain in the back, though not commonly in the early stages. When it occurs, it is not acute, like the agony of hip-disease, but dull and heavy; and is readily distinguishable from hyperæsthesia of the back, which does not belong to Pott's disease. One reason why this pain should be less excruciating than that of hip-disease is, that the vertebra is not inclosed in a tight capsular ligament; if inflamed, it has a chance to expand; if suppuration occur, the matter has a chance to escape.

If the disease be higher in the cervical region, there may be symptoms readily mistaken for those of torticollis, unless one have the possibility of cervical caries in mind, when the difference in the attitude, and in the feeling of the shortened muscles, will help to a correct diagnosis. In lumbar caries there may be contraction of the psoas magnus, that would lead a careless observer to suspect hip-joint disease; but the characteristic signs of this affection will be absent, and the patient will incline to support himself by his hands on his knees, as never in morbus coxæ.

The patient's attitude should be carefully noted, as it is very characteristic. He may or may not lean to one side; but there is always an effort to get as many springs under him as possible—a peculiar crouched posture, an instinctive and unconscious letting-down of each joint of the body, so as to avoid shock. In walking, he carries himself carefully, putting the toes down first, and never striking boldly on the heel. He is disinclined to sit so as to bend forward, as this would bring pressure upon the inflamed bodies of the vertebræ. If a child, when he runs to his mother's lap, he falls heavily upon it, and strives to bear his whole weight upon the elbows.

Paralysis, more or less marked, is another symptom, which may appear early, and then is apt to be brief, the child being put to bed till it passes off; or it may appear in the later stages, when it may last a year or two. The collateral symptoms will serve to distinguish the paralysis of Pott's disease from that due to other causes.

The expression of the face is frequently anxious and careworn.

If any of the above symptoms are noted, never "pooh-pooh" the anxious mother, who feels that there is "something wrong," and tell her that the child will "grow out of it;" but undress the little patient; carefully observe his attitude; and examine closely for incipient spinal curvature. The curvature of Pott's disease ought never to be mistaken for "lateral curvature;" although the two forms may co-exist and complicate the diagnosis. Apart from the symptoms of the former already described, the spinal column, in that affection, "generally follows two very nearly straight lines from above and below, until they meet; at this point of meeting the projection will ultimately appear." This rule, however, is not invariable. In lateral curvature, on the other hand, there are commonly one or two secondary curves, compensatory to

the main one. Lateral curvature is rare before the twelfth or fourteenth year; while "angular curvature" is commonest in infancy and childhood, though it may occur up to old age.

There is one sign popularly relied upon—and too often by members of the profession—as a test for the disease under consideration, which it is of moment to set aside. This is sensitiveness to pressure over one or more points of the spinal column. As before remarked, such sensitiveness is never dependent upon Pott's disease; of the 382 cases above mentioned, not one exhibited this symptom.

FEB. 19.—DR. WM. R. WHITEHEAD read a paper upon *The Surgical Treatment of Cleft of the Hard Palate*, giving the history of the various operative procedures that have been employed, and a particular description of Langenbeck's operation of "muco-periosteal uranoplasty." For a full account of this subject, with summary of fifty-five cases, see an elaborate article by Dr. Whitehead in *Am. Jour. Med. Sci.*, Oct. 1868. The doctor presented a patient upon whom he had successfully performed the operation of Langenbeck, with a record of the case.

FEB. 26.—DR. O. D. POMEROY read a paper upon *Some of the Indications for the Use of Spectacles in Hypermetropia.* DR. KNAPP followed with remarks upon the subject.

DR. ISAAC E. TAYLOR presented a uterus demonstrative of his views of the condition of the cervix during the latter part of pregnancy.

MARCH 5.—DR. S. WATERMAN read a paper upon *Spectral Analysis as an Aid in the Diagnosis of Disease* (*Med. Gazette*, Nos. 73, 74), drawn in great part from an elaborate article by Prof. Schneider in the *Wiener Med. Zeitschrift*, No. 94. Among the points either brought to light or confirmed by the spectroscopic analysis of the blood, under various conditions, we note a few:

That the red corpuscles are the chief carriers of oxygen from the lungs to the tissues was already established. It is now proved, as before deemed probable, that this office is performed by their coloring matter, hæmaglobin (otherwise known as hæmatocrystallin, hæmatin being a product of its decomposition). The spectral bands characteristic of the hæmaglobin when charged with oxygen (oxyhæmaglobin) differ from those belonging to it when the oxygen has been given up (reduced hæmaglobin). The spectroscopic phenomena of suffocation have been carefully studied, and afford the best tests for determining whether or not death has been due to this cause. This is likely to prove of great value in forensic medicine; and not less so is our knowledge of the spectroscopic reactions of the blood after the exhibition of toxic agents—for example, prussic acid and carbonic oxide. In slow poisoning by the latter, its amount may be readily determined. Its spectrum is not changed by the presence of carbonic acid. "At the present stage of our knowledge it is conceded that most gases, even prussic acid, destroy life by suffocation; that the oxygen imbibed by the hæmaglobin is abstracted and appropriated by the inhaled gases, instead of enabling the system to sustain the functions of life, as is the case in poisoning by sulphuretted hydrogen; or that the noxious substances introduced into the blood deprive the hæmaglobin of its power to undergo its normal metamorphosis into oxyhæmaglobin, as in poisoning with carbonic oxide; or that both effects occur at one and the same time—as probably in poisoning with prussic acid and cyanate of potassa. It is, then, evident that, in poisoning with irrespirable gases, salvation may be expected from artificial respiration and transfusion rather than from the employment of antidotes, which can only act as additional poisons."

"The spectroscope is also successfully employed to demonstrate hæmatin from decayed and decomposed blood, suspended in various fluids, from which we fail to separate the hæmin crystals." It gives more exact results than other methods of quantitative analysis in the determination of the amount of the blood-pigment; and it has shown that the whole amount of iron obtained from the blood by incineration, belongs to its hæmaglobin.

In conclusion, Dr. Waterman stated his conviction that the spectroscope would prove hardly inferior to the microscope in its value to medicine, and would lead to many important changes in theory and practice. "The condition of the blood in low putrid fevers, in alcoholism, in exanthematous disease, in bites of venomous reptiles, in syphilis, in tuberculosis and scrofulosis, promises to receive new light from spectroscopic analysis." It is also safe to predict solid results from it as to the nature of the alteration in the blood during the exhibition of the various anæsthetics; pointing out the exact sources of danger in their use, and indicating the means of averting or counteracting it. "The analysis, if extended to the bilious, the gastric, the pancreatic, the salivary, and the urinary secretions, will establish many facts bearing upon their pathological conditions, thereby facilitating diagnosis and suggesting proper modes of treatment."

DR. NEFTEL, who had worked in the laboratory of Hoppe Seyler when he was conducting his spectroscopic examinations of the blood, added some points of a technical character to those given in Dr. Waterman's paper. Though the merits of Hoppe Seyler, whom Dr. W. had called the chief pioneer in this study, were certainly very great, yet higher credit should be awarded to Stokes, who first discovered the spectroscopic changes produced by reducing agents.

Dr. Neftel related a case confirmatory of his views on the production of vaginismus by lead-poisoning. (Reported in MED. RECORD, April 1, 1869, vol. iv., p. 70.)

MARCH 12.—DR. J. S. HAWLEY, read a paper upon *Pepsin, its Physiological and Therapeutical Actions* (MED. RECORD, May 1 and 15, 1869, vol. iv., pp. 100, 124.)

MARCH 19.—The speaker announced for the evening being absent, it was proposed by Dr. Post that members relate interesting cases from their practice.

DR. POST had, three days before, operated upon a child, about four years of age, for the removal of a *tumor* situated behind the sterno-mastoid muscle. It had first been noticed at the age of four months, and had grown to the size and shape of a pullet's egg. It was soft to the touch; the skin, not at all discolored, was distinctly movable over its surface; and the tumor itself was freely movable upon the subjacent tissues. The child's general health was not at all affected. The growth was evidently benign and was judged to be a lipoma, the only question being between this and a cyst with thin walls and semi-fluid contents. But on cutting down upon it, it presented a dark color and a surface very like that of the vascular form of bronchocele, bled freely, and proved to be a deep *subcutaneous vascular* tumor, consisting of enlarged veins. An attempt to enucleate it failed, from the profuse hæmorrhage. The principal mass was then tied, and left to slough off, this being the only thing to do in the pre-

mises; though, if the character of the tumor had been suspected, the knife and the actual cautery might have been employed. It would probably slough, and a radical cure result. There were no means by which the diagnosis could have been made beforehand. Vascular tumors, seated entirely beneath the skin, were commonly wholly, or almost wholly, venous, while *cutaneous* vascular tumors were commonly arterial. Many involved both the skin and the subjacent tissues, and were mixed. In the present case there was a distinct cellular interval between the skin and the tumor, as also in a case the speaker had seen in the practice of Dr. Hubbard.

Dr. P. had recently operated for complete *fistula in ano*, in a child five years old—the earliest age at which he remembered to have seen it, though Dr. Krackowizer had seen a case in a child of two years.

Dr. Weber, in his earlier operations for fistula in ano, by the ordinary method of incision, had found great difficulty in getting the wound to heal promptly. In his last case, which, from the character of the fistula and the patient's state of health and irregular habits, was not very promising, he had, after the incision, thoroughly washed out the wound and all the sinuses with a solution of *chloride of zinc*, twenty grains to the ounce; and the healing had been much more rapid than in his previous cases. The chloride of zinc seemed to have a very favorable effect in setting up quick and healthy granulation. In this strength it was not caustic or irritant, and its application gave little pain. Some years ago, before Mr. Lister came out with his carbolic acid, it was proposed, in England, to apply a twenty or thirty grain solution of the chloride in all operations where large surfaces were exposed, to promote speedy granulation. It probably would not hasten primary union.

Dr. Post had had, at his clinic the week before, a child with a vascular tumor upon the right temple, encroaching upon the outer canthus of the eye and involving perhaps one-fifth of the conjunctival surface of the upper lid. It was important to prevent its spreading over the eye; and nitric acid was applied, the lid being everted and compressed by means of Desmarre's ring forceps, which served admirably, both to limit the application of the acid and to hold the lid everted as long as necessary afterwards.

Dr. Weber had, on Monday week, operated upon a gentleman 32 years of age, a music teacher, for *piles*, by the method of Henry P. Smith, of Dublin. The pile was grasped by Smith's clamp, which is lined upon one side with ivory, as a non-conductor of heat; cut off with scissors; and the red-hot iron applied to the surface, before loosening the clamp. In this case there were two hæmorrhoidal tumors thus removed. The bowels were locked up for three days, when an ounce of castor-oil was given. The first dejection was attended with considerable pain; but there was little or none the next day; on Friday the patient was up and about; and on Monday, one week from the operation, he resumed his lessons. There was at no time any febrile excitement. Smith's original instrument was preferable to a modification made by Tiemann & Co., as having a firmer grasp.

Dr. Post preferred the nitric-acid treatment for internal hæmorrhoids, where the patient resided in the city, so that the treatment could be long enough continued. He had cured in this way a lady music-teacher, who had been annoyed with hæmorrhoids for years. Five or six applications of the acid were made, at intervals of a week. She would come to the office after her morning lessons; wait an hour after the application; and give other lessons in the afternoon. The hæmorrhage attending these tumors commonly ceased after one or two applications. It was not generally necessary to touch the whole surface of the tumor, but only its spongy vascular parts. A small wooden spatula was the best instrument; followed immediately by a sponge. When a patient from the country could stay but a week or two for treatment, he commonly employed the ligature. The severe pain attending its use was diminished by having the ligature very strong and drawing it very tightly. If one side of the pile was covered with skin, it might be well to incise this, though it was not his habit. The tumor would slough off in a week or ten days.

Dr. I. E. Taylor said that the ligature would give little pain if it included only mucous membrane; but if any portion of skin were included, the pain would be severe.

Dr. Post thought the mucous membrane of the rectum more sensitive than that of almost any other part of the body.

Dr. Carroll had operated upon a lady where the pain was excruciating until the ligature came away, though this was made as tight as he could draw it, and no skin whatever was included, the tumor being quite high up. The patient was not nervous, but could bear pain well.

Dr. Hubbard described Dr. Dixon's method of tying piles, in a case he had witnessed; and Dr. Carroll remarked that several of the irregular practitioners had some peculiar skill in this matter; an acquaintance of his had had his piles tied by one such, with no pain to speak of, and had gone regularly to his business every day; the operation effected a cure.

Dr. Hubbard thought chromic acid was preferable to nitric. Dr. Markoe had published several cases in which he had employed it. He had himself successfully used it in a sixty-grain solution. Of this strength, or a little higher, he had found it the best application for venereal warts.

Dr. Weber endorsed its efficacy, but had sometimes found it burn deeper than he wanted.

Dr. Taylor had seen it repeatedly fail to cure extensive masses of venereal warts, which had readily yielded to a solution of corrosive sublimate and muriate of ammonia, one scruple of each in two drachms of rectified spirit. In cauliflower excrescence, where chromic acid did no good, this solution acted very beautifully. So, too, in certain forms of lupus of the vulva. In some wens it worked well, "causing the fatty portion of the wen to dry up." It gave little pain, as he could testify from its use in his own case—upon a fungous onychia, on the side of the finger, which had for two years resisted every other form of treatment, persistently reappearing, till two applications of the muriates of mercury and ammonia killed it.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, September 8, 1869.

Dr. L. A. Sayre, President, in the Chair.

CYSTO-FIBRO-SARCOMATOUS TUMOR OF BREAST.

Dr. Neftel exhibited a tumor of the mamma which he removed from a female patient on the 6th of July last. She first felt a small induration in the right mammary region about a year before. This remained *in statu quo* for about five or six months, at the end of which time it began to grow so rapidly that at the time of removal it was fully the size of the fist. During the growth of the tumor she suffered considerably from acute pains, and a feeling of numbness of the right ex-

tremity; accompanied with partial paralysis and considerable anæsthesia. The incision for the operation, which was nine inches in length, was brought together by silk sutures, and healed throughout by the first intention. Only two ligatures were necessary; one came away on the tenth, the other on the sixteenth day.

The tumor, after its removal, was found to be made up of hard whitish nodules, embedded in softer material, which was of a reddish color, and very vascular. The external parts were composed of the elements of connective tissue, constituting fibroma. Other parts presented the character of myxoma; the intercellular substance containing a great deal of müscine. The greatest part was a real sarcoma. The growth then was as a whole considered a cysto-fibro-sarcoma, what Virchow calls a local malignant tumor. The disease, under such circumstances, develops itself first in the mammary gland proper, attacking in order the connective tissue and the skin, finally producing external ulcerations. Generally when masses of such a nature are extirpated there is no re-development of the disease in distant parts, and the prognosis is consequently in the main favorable. In conclusion he stated that the operation was performed before he had had an opportunity for trying electrolysis. He much preferred the latter method, as the patient was not obliged to stay at home, could pursue his avocations, and there was no danger of pyæmia, erysipelas, nor relapse. This was especially to be expected in malignant tumors.

Dr. Sayre asked if there was sufficient testimony as to time in favor of the electrolytic treatment of malignant tumors to warrant the expectation of cure as a general rule.

Dr. Neftel remarked that he had made use of the treatment in one case only, but with entire success. If a cure could not be guaranteed in every case, nothing could be lost by a trial. The case has already been published in full (vide Medical Record, vol. iv., p. 289).

Dr. Rogers, on behalf of the Committee on Microscopy, made the following report:—

The specimen of disease of the liver, presented to the Society at its last meeting by Dr. Finnell, and just alluded to in the minutes as one of cancerous disease, has been found by the committee to be a sample of that abnormal condition known to pathologists as "*Cavernous Tissue*" or as "*Erectile Tumor*." The specimen is returned for re-inspection by the members of the Society, and is seen to be composed of a clearly marked areolar or spongy structure, not unlike the cavernous body of the penis. Pathologists differ in their statements as to the frequency of the occurrence of this condition. The English and American authors regard it as very rare, while some of the German writers, Rokitansky for example, speak of it as occurring frequently. This discrepancy, it is probable, arises from the doctrine held by the latter, that the stroma of a cancer of the liver may be exactly like the meshwork of the erectile tumor, and that if the erectile tumors are not uniformly the first stage of cancer, there is certainly great liability to their becoming cancerous, not to say that their affinity with cancer is marked. With these views one is very liable to regard vascular medullary cancers, and this class of cancers in which blood-cysts are numerous, as cavernous or erectile tumors. Mr. Paget entertains this suspicion. It does not therefore seem probable that cavernous tumors of the liver, with no cancerous deposit in them, are in fact rare, while very vascular tumors of this organ, presenting stroma very much resembling that of the cavernous tumor, but more or less infiltrated with cancerous cell structure, are comparatively frequently met with.

The specimen before the Society is one in which a well-marked cavernous or spongy structure with no cancerous infiltration is present, and may therefore be regarded as one of the rare forms of erectile tumors of the liver.

SIMPLE CARDIAC HYPERTROPHY.

Dr. Newman presented an hypertrophied heart weighing eighteen ounces, taken from a male thirty-five years of age who died of abdominal and pleural dropsy. He was unable to give any history of the case. On making the autopsy, he was surprised to find the heart, although so much enlarged, without a single organic lesion.

Dr. Rogers examined the organ microscopically, and reports the following result: "Having examined pieces from all parts of the specimen of heart you left at my office, I have to report that the process of disorganization of its ultimate structure is very far advanced.

"There are few, if any normal muscular fibrillæ in it. A fasciculus is occasionally found, in which the striæ are very indistinctly marked, but the fibre in all cases is studded with globules of oily matter. The great mass of fibres, however, do not preserve the faintest trace of the characteristic markings of healthy muscle.

"Judging from the evidences furnished by the specimen, I should say that, though the organ may have been a very large one, it must have been very feeble."

Dr. Neftel asked if the kidneys were examined, as simple hypertrophy was very often the result of degeneration of those organs.

Dr. Newman remarked that the kidneys were to all appearance so perfectly healthy that an examination by the microscope was thought to be unnecessary. They were not, however, examined with the microscope. He mentioned also that a peculiarity about the heart was the great lightness; soon after its removal, it floated upon the liquid in which it was immersed.

Dr. Rogers thought that that was probably due to decomposition and the consequent imprisonment of gases within the cavity of the heart and in the substance of its walls.

Dr. Finnell, in answer to a question, remarked that it was not uncommon to find hearts that were the subjects of fatty degeneration having such a low specific gravity.

POISONING FROM CYANIDE OF POTASSIUM.

Dr. Finnell presented a stomach removed from a woman who had committed suicide by swallowing an unknown quantity of cyanide of potassium. Her husband was a photographer, and the material had been procured without difficulty. Family trouble was, as usual, the cause for the crime. She drank the poisonous draught in the presence of her children, and before one of them could call their father from below stairs, she fell dead upon the floor. As near as could be ascertained, death took place in the course of three minutes. The rapidity of death was a marked feature in all these cases. The stomach, as usual, showed a universal and intense redness of the mucous membrane. He had never seen any inflammatory deposits in these cases, for the obvious reason that no time was allowed before death for their occurrence. She was thirty years of age, and was a German.

POTENT HOMŒOPATHIC DOSES.

A second specimen presented by the same gentleman was a uterus removed from an adult forty years of age. She was delivered of a healthy child at full term, after which she was seized with the symptoms of peritonitis. The significance of these symptoms, which were principally those of great prostration, was not recognized by her attendant, who was a ho-

mœopath. She suffered very little, if any, pain. To allay the prostration morphine was administered in eighth of a grain doses. The attendant gave three of these at intervals of every two hours, and the patient died. It had been supposed that death had been the result of a too powerful homœopathic dose, and the case was handed over to the coroner.

At the autopsy a large abscess was discovered situated in the posterior lip of the uterus, and a collection of pus in the floor of the pelvis. The veins of the neighborhood were plugged with coagulable lymph. Death was found to be simply the result of a culpably bad diagnosis.

PERFORATION OF THE UTERUS IN INDUCED ABORTION.

A third specimen was the uterus taken from the body of an adult who had an abortion induced in the fifth month. She died four days afterwards from hæmorrhage into the peritoneal cavity. At the autopsy a perforation was found in the fundus, evidently produced by some instrument used by the operator. The victim would not reveal the name of the abortionist.

INJURY OF BRAIN BY A NOVEL PROCEDURE.

Dr. Finnell lastly exhibited a portion of the brain and membranes taken from a man forty-five years of age. When returning from a funeral he was annoyed by some young rascals in the street. He gave one of them a well merited cut with a whip. This was the signal for onslaught upon him by the mother of the boy. Seizing the top of a milk-can, she battered the rim of it upon his head, and, not satisfied with this, belabored him with a whip until the handle was broken upon his skull. He was picked up insensible, and brought to his home, where, at the end of three weeks, he died as the result of the injuries. At the post-mortem examination an extensive clot was discovered occupying the surface of the whole right hemisphere underneath the dura mater. There was no fracture at the point of injury, the original marks of which were numerous scars of the integument. Dr. Finnell was unable to learn the symptoms of the patient during life.

Referring to the case of poisoning by hydrocyanic acid, Dr. Post stated that he was once called a very short distance to see a child two years old that had been poisoned with cyanide of potassium. It had been prescribed by a physician for the mother, who had been in the habit of dropping it out in suitable doses. She was cleaning house at the time of the accident, and placed the vial among others on a chair. The little one went to it and drank off the entire contents. He was sent for immediately, and at once hastened to the house, but before he arrived the child was dead.

(To be Continued.)

Syrup of Iodide of Iron and its Preservation.—M. Jeannel (*Journal de Pharmacie*) approves of the following combination for the manufacture of a solution of iodide of iron which shall remain unchanged by exposure to the air: iodine, 8·2 parts; iron filings, 4·2 parts; distilled water, 20·0 parts; honey, 70·0 parts; tartaric acid, 0·5 parts. Mix the iodine, iron, and water in a flask, and when combination is complete, filter the green solution, and add the honey and tartaric acid. The product will contain 10 per cent. of iodide of iron.

He also observes that the addition of one five-thousandth part of tartaric acid to syrup of iodide of iron which has become bad, renders it clear, and at the same time notably diminishes its inky taste.

Correspondence.

HOSPITAL FOR THE PARALYZED AND EPILEPTIC.

To the Editor of the Medical Record.

Sir—I have recently enjoyed the opportunity of visiting the Hospital for the Paralyzed and Epileptic, that was originally established for Brown-Séquard, while he was practising in London. Through the courtesy of Dr. Russell Reynolds, who was formerly connected with this institution, and Dr. Buzzard, who is now one of the attending physicians, I was enabled to examine, with considerable thoroughness, the various departments of the hospital, and also to see some of the more interesting cases. The room into which I was first shown is called the *Electrical Room and Gymnasium*. The combination of electrization with the movement cure, suggested by this arrangement, was to me exceedingly pleasing, inasmuch as I have long contended that the two methods may very appropriately be employed together in the treatment of nervous diseases, and that, in the *rationale* of their operation, they resemble each other much more than is commonly supposed.

In the Hospital for the Paralyzed and Epileptic, three kinds of electricity are used—Galvanic, Faradaic, and static (sparks). In America, static electricity—that is, the drawing of sparks from the patient seated on an insulated stool—is somewhat out of date. It is used here at present, just as it was formerly used before the popularization of the Faradaic current, to relieve neuralgia and rheumatic pains, and in some cases excellent results are obtained. The apparatus employed is the common frictional machine, familiar to all students of philosophy.

Localized electrization is the method chiefly employed in this hospital, as indeed everywhere throughout Europe, wherever electricity is used at all, in the treatment. So far as I can learn, the method of general electrization based on the tonic action is not yet employed in London.

I am sorry to be informed that the old-fashioned rotary or "crank" machines, that have done the cause of electro-therapeutics so much evil, have not wholly passed away, even in some of the London hospitals. They are not used, however, in the hospital for the paralyzed and epileptic cases.

For the galvanic current they use a large combination of Daniels' elements; for the Faradaic, the neat and convenient, though by no means perfect, appa atus of Stohrer. The present prospects are that in the course of the year a decided improvement will be made in the forms of apparatus employed in the electro-therapeutics of this establishment.

The great objection to Daniels' elements, in large combination, is their non-portability.

The appointments of this hospital are capital throughout. There is a most excellent bath-room, and in all the departments are varied and pleasing adornments to gratify the taste, and aid in the moral treatment of the patients. It has been the manifest endeavor of the founders to make the establishment as little like a hospital as possible, and by every means and on every hand to suggest the ideas of comfort, of joy, and of home, rather than of misery, sorrow, and desolation.

Just such an institution is needed in New York, and in all of our large capitals; and it is certainly to be hoped that one of the beneficent results of the special study of nervous diseases in America will be the establishment of institutions of scientific philanthropy, similar to that which I have described.

STUDY OF NERVOUS DISEASES.

The profession in London has given quite a number of authorities to the science of neurology. Radcliffe, Russell Reynolds, Ramskill, Hughlings, Jackson, Ogle, Anstie, Wilks, Sieveking, Handfield Jones, and Althaus, are some of the names that are now well known on both sides of the Atlantic, as writers on various diseases of the nervous system.

The tendency here, as everywhere in all scientific centres, is toward specialism, rooted and grounded in the best possible general culture. The leading minds in the profession here would subscribe to the sentiments of the celebrated address of Thomas Carlyle on education—that is, to first inform to the utmost every capacity and opportunity for general training, and to concentrate the energies on the special aptitude after they have become thoroughly apparent.

AMERICAN MEDICAL AUTHORS IN EUROPE.

As one of the incidental objects of my visit was to make arrangements for the republication of my works in London, I have become somewhat acquainted with the leading publishers, and have had the curiosity to ascertain in regard to the transatlantic popularity of some of our best-known writers in science. Hamilton's Treatise on Fractures and Dislocations is regarded here, as with us, as the supreme authority on the subject of which it treats. Both of Bedford's works have a constant and flattering sale.

Thomas's recently published treatise on diseases of women has already met with a good reception in England. Gross's Surgery, Bumstead's Venereal, the writings of Professors Flints (senior and junior), Dalton's Physiology, Dunglison's Medical Dictionary, Da Costa's Diagnosis, and Elliot's Obstetric Clinic, all meet with a good sale. Messrs. Trubner & Co. inform me that the popularity of American medical works is decidedly on the increase in England.

POPULARIZATION OF MEDICAL SCIENCE.

In the popularization of medical science—at least in the preparation of treatises for the masses, in popular language—the English are certainly much in advance of us. Not only are there popular works on medical science in general, but special treatises on special departments of medicine are prepared by competent and acknowledged authorities in that department, published in a cheap and convenient form, and sold in large numbers. I examined to-day, at the well-known medical publishing house of Churchill & Sons, about a dozen manuals on various departments of medical science for popular use. The list includes a treatise on the skin, by Erasmus Wilson; three works by Chavasse, containing advice to mothers and families; a medical handbook, by Headland; a paper on the climate of India, by Tilt; annotations to Chavasse's popular treatises, by Sir Charles Locock; and still another work on the skin, by Squire.

One very powerful and efficient medium of communication between the profession is the "Lancet." This journal is taken at the clubs in town, and is read by very many who know nothing of medicine. It is also sold at some of the principal stands and newsrooms, side by side with the secular weeklies and dailies. This very evening, as I called at a bookstore to purchase a copy of the London "Illustrated News," I saw the "Lancet" side by side with "Bell's Life" and "Lloyd's Weekly;" and the proprietor of the establishment told me that it always met with a good sale.

Yours truly, GEO. M. BEARD.

LONDON, Aug. 30.

THE CANADA MEDICAL ASSOCIATION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—The second annual meeting of the Canada Medical Association, composed of delegates from all parts of the New Dominion, took place yesterday, Dr. Tupper, of Halifax, in the chair. Dr. Davis, of Chicago, represented the American Medical Association. The opening address was delivered by Dr. Joseph Workman, Superintendent of the Provincial Lunatic Asylum, Toronto. He alluded, in very sarcastic terms, to the Medical Law enacted by the last Parliament, which virtually placed Homœopathic and Eclectic practitioners on an equal footing with the regular profession. He believed the profession would fare better by keeping clear of the legislators, and depending on their own exertions to vindicate their honor and respectability.

The new medical law, now in force, is an extraordinary piece of legislation. It provides for the appointment of a Board of Examiners, consisting of regular Homœopathic and Eclectic practitioners, with sole power to issue licenses to practise medicine in the Province of Ontario. No degree or qualification whatever exempts from the authority of this Board. There are certain branches—as anatomy, physiology, etc.—in which the examination is the same for all applicants; but if the object is to become a Homœopathic doctor, then the examination in materia medica and therapeutics is conducted by a Homœopathic member of the Board. The law is certainly humiliating to the profession, and it is regarded with great dislike by many of the best medical men in the Province.

The President, Dr. Tupper, followed in a brief address, in which he emphatically condemned the new medical law, which he regarded as a retrograde step, that could not fail to injure the profession in the eyes of their brethren elsewhere.

No business of general importance was transacted yesterday. A motion was made that Dr. Lizars, of Toronto, be admitted to the Association, but as he was accused of consulting with Homœopathists, the motion was lost.

At the session to-day, after formal business, reports, etc., a paper on Pneumonia was read by Dr. Howard, of Montreal. He advocated large doses of tartar emetic.

A paper on Puerperal Fever was read by Dr. Henry, after which the question of Homœopathic irregularities was resumed, and the name of Dr. Prosper Bender, of Quebec, was stricken from the rolls of the Association for violation of the code of ethics.

The application of Dr. Lizars was again brought up, and a stormy discussion ensued. The applicant was allowed to make an explanation, in which he admitted that he was in the constant habit of consulting with Homœopathic doctors. A promise to abandon such a practice was with some difficulty extorted, whereupon he was admitted to membership by a two-thirds vote.

Dr. Tupper, of Halifax, was elected President for the ensuing year, and after the election of other officers, and the appointment of a delegate to the next meeting of the American Medical Association, the Society adjourned, to meet next year in Ottawa.

J. B. H.

TORONTO, Sept. 10, 1869.

THE HARLEM MEDICAL ASSOCIATION organized September 1st ult. by the election of the following officers: *President*, Harvey H. Gregory; *Vice-President*, John L. Colby; *Secretary*, Ira B. Reed; *Treasurer*, A. Norton Brockway.

Medical Items and News.

THE ROOSEVELT HOSPITAL.—The trustees of this long-expected hospital will shortly commence building. The plans call for a three-story and basement brick hospital, between Fifty-eighth and Fifty-ninth streets, commencing at a point 281 feet west from Ninth avenue; size, 56 × 170. As the matter of setting aside the bequests of the late James H. Roosevelt, by whose will the hospital has been endowed, was before the special term of the Supreme Court, it is presumed that the decision has been in favor of the trustees.

PETER MARK ROGET, M.D, F.R.S.—This distinguished physician and author, who died Sept. 17th ult., was descended from French Protestant refugees in Switzerland. His father, a native of Geneva, having removed to London, became a minister to a Swiss church in Threadneedle street, and married a daughter of Sir Samuel Romilly.

The deceased was born in London during the year 1779, and wase ducated at the University of Edinburgh, where he studied medicine and took the degree of M.D. in 1798. For some six years after he practised his profession with ordinary fortune, but in 1803 he obtained the position of private physician to the Marquis of Lansdowne, and accompanied that nobleman to Harrowgate and Bath. In 1804 he settled in Manchester, where he received the appointment of physician to the infirmary. Four years later Dr. Roget removed to London, where he ever after resided. By this time he had won reputation as a physician, and ranked high in the medical world. At the English metropolis the formation of the "Northern Dispensary" was mainly due to his exertions. To this admirable charity he was physician for many years. He lectured frequently before the principal scientific institutions of London, mostly on medical subjects. He was also the recipient of several appointments from the Crown and from societies.

Dr. Roget was less widely known as a practitioner than as an author. As a contributor to numerous reviews and magazines, he earned an enviable reputation. As a scientific writer, his work on "Animal and Vegetable Physiology," first published in 1834, exhibited his extensive learning and deep research. Numerous treatises on scientific subjects which he wrote, and which were published by the Society for the Diffusion of Useful Knowledge, were models of erudition, and did great service to science in their day. In 1815 the doctor was elected a Fellow of the Royal Society, to which he soon after became secretary, holding that position for a period of over twenty years with marked ability and success. He was the first Fullerian Professor of Physiology at the Royal Institute. In 1839 he received the appointment of Examiner in Physiology in the University of London, and was one of the original members to the Senate of that body. The greatest of Dr. Roget's literary productions is undoubtedly his "Thesaurus of English Words and Phrases." As far back as 1804 he had projected it, but found no time to make other than "a classical catalogue of words on a small scale" for his own use. After his retirement from the duties of secretary of the Royal Society, however, he devoted himself to the compilation, working incessantly at it for a period of four years. This book was first published in 1854, when the venerable author had passed his seventy-third year. It was received with great favor, and at once assumed the position of a standard medium of reference. There are few or no writers at the present day to whom Roget's Thesaurus has not been of as great value as a dictionary.

Since the publication of the Thesaurus, we do not remember having seen the name of Dr. Roget in print in connection with any other literary undertaking. For the last few years he had been in retirement, passing calmly the remainder of his days. He had attained to a great age, and died full of honors. He was a Fellow of the Royal College of Physicians, a member of the Senate of the University of London, and of the literary and philosophical societies of Manchester, Liverpool, Bristol, Quebec, New York, Haarlem, Turin, and Stockholm. Indeed, throughout Europe and North America, his great abilities were recognized and were honored in the most appropriate manner.

FEMALE MEDICAL EDUCATION IN SWEDEN.—It is announced that the Swedish Government purposes next year to establish a Medical College at Gothenburg. Ladies not under seventeen years of age may be admitted to a complete course, lasting three years, with clinical and anatomical lectures, &c.; the graduates of this College being allowed to establish themselves as physicians all over the kingdom. The practice of midwifery is already almost entirely in the hands of women, and institutions for teaching it in all its branches have been long established.

A DISTINGUISHED VISITOR.—Sir Henry Holland, now in his 82d year, formerly physician to the Queen and Prince Albert, and at a much earlier date (1814), to the Princess of Wales (afterwards Queen Caroline), is on his eighth or ninth visit to the United States. He has come over for the purpose of making a long excursion westward, extending to St. Paul, Minnesota. Sir Henry has professionally attended three intimate friends of Dr. Johnson—Mrs. Piozzi (Thrale), Sir W. Pepyss, and Madame D'Arblay. He was the physician and friend of Campbell, Moore, Joanna Baillie, Rogers, Lord Grey, Lord Lansdowne, Lord Russell, Macaulay, Sydney Smith, Hallam, and others.

He was consulted about the last illness of Napoleon I., and prognosticated its fatal termination. Mme. De Stael and Talleyrand were his intimate friends. During the last two days of the life of Mr. Canning, Prime Minister of England, Sir Henry was constantly at his bedside.

On divers occasions he met Lord Byron in London society, and says of him:—"His presence made the fortune of any dinner or drawing-room party for which it could be obtained, and was always known by a crowd gathered round him, the female portion of which generally predominated. I have seen many of these epidemic impulses in London society, but none more marked than this. There was a certain haughtiness in his manner of receiving the homage tendered him, which did not, however, prevent him from resenting its withdrawal."

New Publications.

BOOKS RECEIVED.

PHYSICIAN'S VISITING LIST FOR 1870. Fifty patients. Philadelphia: Lindsay & Blakiston.

THE MECHANISM OF DISLOCATION AND FRACTURE OF THE HIP, with the Reduction of the Dislocations. By HENRY J. BIGELOW, M.D., Professor of Surgery and Clinical Surgery in the Medical School of Harvard University, etc. Philadelphia: H. C. Lea. 1869.

ERRATA.—In Dr. ROBERTS' article, page 320, for "multiparæ" read "nulliparæ;" on page 322 read "towards" and not "from." Same page, read "gyna-latrica."

Original Communications.

TWO RARE CASES OF STRANGULATED HERNIA.

By JAMES L. LITTLE, M.D.,

LECTURER TO THE COLLEGE OF PHYSICIANS AND SURGEONS, ATTENDING SURGEON TO ST. LUKE'S HOSPITAL.

CASE I.—*Strangulated Inguinal Hernia on* LEFT SIDE, *in which the protrusion consisted of the Appendix Vermiformis, a portion of the Cœcum, and several inches of the Ileum.*

ON January 13th, 1869, I was called to see a child, aged *four months*, which was under treatment, by Dr. E. B. Belden, for gastric disturbance. The doctor had not seen the child for about twenty-four hours previous to my being called in, having been detained by some urgent case. On arrival I found the patient suffering from strangulated inguinal hernia of the *left side*.

The hernia first made its appearance about twelve hours previous to my visit, and had gradually increased in size owing to the straining caused by the child's crying. The patient had been constantly vomiting for the last three or four hours. On examination the hernial tumor was found to be tense and resonant on percussion.

Taxis was tried and failed. The little patient was thereupon etherized by Dr. Samuel B. Ward, and another attempt at taxis was made, upon the failure of which I proceeded to operate, assisted by Drs. J. L. Campbell and P. C. Cole.

The operation was performed in the usual manner.

On opening the sac the hernia was found to consist of the appendix vermiformis, with a knuckle of the cæcum and about four inches of the ileum. The internal ring being the seat of the stricture, it was enlarged with the hernia knife, and an attempt was made to reduce the protrusion. Here considerable difficulty was met with, owing to the cavity of the pelvis being so very small.

On attempting to push back the intestines, more and more of them were forced out, until about eighteen inches of the ileum protruded from the abdominal cavity.

The child was then raised from the table by his feet, with the head hanging down, and after some trouble the intestines were replaced. Dr. Cole then, with his finger, made pressure over the internal ring, while the wound was closed by means of sutures, and a compress of adhesive plaster, folded with the adhesive side out to prevent it from slipping, was then placed over the external ring and over the inguinal canal, and secured by a spica bandage.

Four hours after the operation a spontaneous discharge from the bowels took place; this was followed by an obstinate diarrhœa, in consequence of which the patient died on the third day after the operation.

Remarks.—This case is one of extreme rarity. Teale, in his admirable work on Hernia, refers to a case mentioned by Sandiford, in which a hernia of the left side was formed by the cæcum, but does not state the age of the patient. With this exception, I have not been able to find a reported case in which this condition existed. In the infant the cavity of the pelvis is small, and the meso-cæcum is proportionately larger than in the adult, and allowing a greater freedom of movement in the cavity of the pelvis, may thus be enabled to descend into a hernial sac on the left side.

Transposition of the viscera, which sometimes occurs, has been suggested to explain this case; but the examination of the intestines at the time of the operation showed that the relation of the appendix vermiformis and the cæcum with the ileum was normal.

CASE II.—*Strangulated Hernia of the Tunica Vaginalis, the Testicle being in the Inguinal Canal.*

August 16th, 1868, at 12 M., I was called to see John Piper, aged 40, who was suffering from a strangulated hernia.

The man gave the following history: Has been suffering from rupture for many years; was accustomed to wear a truss during the day, removing it on retiring to bed.

For some time past he has been drinking rather freely, and after rising this morning he went out to get his usual glass of liquor, neglecting to apply his truss. While out he began to suffer from symptoms of strangulation. After making several unsuccessful attempts to reduce the rupture, Dr. Dumond, the family physician, was called in, and he not being able to relieve the patient by taxis, sent for me. On arrival I found the sufferer with all the symptoms of strangulated hernia—vomiting and severe pain in the vicinity of the umbilicus. On examination I found a large tumor, about the size of an orange, in the right iliac region, just above Poupart's ligament, resembling very much a large femoral hernia, which had turned up over Poupart's ligament. Patient stated that it had always been considered a femoral hernia. On further examination I found that the right testicle was missing; patient remarked that he had never had more than one.

The tumor had an elastic feeling, and was resonant on percussion; the situation of the testicle could not be ascertained.

Was told by the patient that the hernia had never descended into the scrotum. The case was then diagnosticated as an oblique inguinal hernia, confined in the inguinal canal by an undescended testicle. After making an ineffectual attempt to reduce by taxis, and finding that the symptoms were urgent, I deemed it advisable to operate immediately. The patient was etherized by Mr. Hurdsfield, a medical student, taxis was again tried, and failing, the following operation was performed, Dr. Dumond, attending physician, and Drs. White and P. C. Cole assisting.

Operation.—The incision, about four inches in length, was made in the most prominent part of the tumor, parallel with the median line of the body. Cutting the skin and superficial fascia the aponeurosis of the external oblique muscle was then divided upon a director and the hernia immediately brought into view. It consisted of about twelve inches of the small intestine, and was of a dark red color. The testicle, of natural size, was now seen in the wound, in the neighborhood of the external ring. The finger was then passed up into the internal ring, which seemed to be the seat of stricture; this was enlarged by the hernia knife and the intestine returned. The wound was then closed by silver wire sutures, allowing the testicle to remain in its original position, and a compress and spica bandage applied. Ordered one grain of opium, to be taken every three hours.

Five hours after operation: Patient in good condition; pulse 92; slight tenderness over the abdomen; ordered opium, grain j., every two hours; poultices of linseed meal applied to abdomen.

Twenty hours after: Pulse 72; patient vomiting occasionally, and appears to have some symptoms of delirium tremens; opium continued, and carbonic acid water given to allay vomiting.

Forty-four hours after operating: Vomiting has ceased, and general condition somewhat improved;

slight erysipelatous inflammation; ordered lead and opium wash.

Seventy-two hours after: Patient's bowels moved spontaneously, and from this time forth his condition progressed very favorably; the wound suppurated moderately, and in about two weeks after operating he was able to pursue his usual vocation.

Remarks.—This case is similar to the one reported by Dr. Gurdon Buck in THE RECORD of the date of July 15, 1869. No distinct peritoneal sac could be found; the peritoneum lining the inguinal canal was adherent to the walls of the canal, so that when the skin and superficial fascia were divided the tendon of the external oblique muscle was exposed, and lifting a small part with the forceps and making it so as to introduce a director, on cutting it the intestine was immediately exposed to view. The testicle, with spermatic cord and intestine, was in the same peritoneal cavity as in congenital hernia.

CASE OF
STRANGULATED ENCYSTED HERNIA OF TUNICA VAGINALIS,

COMPLICATED WITH A PARTIALLY DESCENDED TESTIS, AND ALSO WITH HYDROCELE.—OPERATION.

By F. D. LENTE, M.D.,

OF COLD SPRING.

ALBERT H., aged twenty years, a very stout, athletic youth, while making a violent effort at his work, on January 15th, 1869, felt something give way in his left groin, attended by the most intense pain, and almost causing him to faint; he, however, was able to lie on his stone-boat to be drawn home. Upon visiting the patient an hour or so after the accident, I found that he was considerably prostrated, that he had vomited twice, and was in great distress, complaining of severe pain in the right groin; where I found a swelling over the external ring, extending into scrotum, which was the seat of great tumefaction, very tense, but distinctly fluctuating; no gurgling, no impulse on coughing; there was a decided constriction just above the centre of the tumor; no translucency by dioptric test; the exact location of testicle could not be made out. Learned from patient that the testicle had not descended at all into the scrotum until he was twelve years old; could be felt at the external ring some time before. Since then he had been able to move it up and down the scrotum, and probably within the ring. He applied to me a couple of years ago with a moderate hydrocele, and was advised to wear a suspensory bandage until it increased so as to require operation. Stated that there had been much less swelling during the past year than before.

Administered ether to complete relaxation, and made persevering attempts at reduction, but unsuccessfully. Ordered an enema, the operation to be followed by a full anodyne, and a bladder of ice applied to the tumor.

Jan. 16th. Bowels moved freely with the enema. No vomiting, but some nausea. Pulse 100, soft and regular. Dr. Murdock, my assistant, saw the case at this time. No urgent symptoms being present, it was decided to wait.

Jan. 17th. Pain much increased and located principally about *umbilicus*, some vomiting; no change in tumor. Patient anxious. Etherized patient thoroughly, without making the least impression on the tumor. It was therefore decided to operate at once. Upon incising the integuments from the external ring downwards, the distended *tunica vaginalis* was exposed, and upon being opened, gave exit to several ounces of clear serum. The testicle, much atrophied, was exposed opposite the *ramus* of the *pubes*. Nothing could be seen of the *hernia;* but upon pressing the finger deeply in at the upper extremity of the incision, a small elastic swelling was felt; its investments very thick, being composed of the posterior wall of the *tunica vaginalis testis*, peritoneum, and probably some inflammatory exudation. Upon cutting through this, the small loop of intestine, in a fair condition, was exposed. The stricture was divided with some difficulty, as it was situated at the *internal ring*, and unusually high. The intestine was replaced and retained by compress and spica. The testicle was left where it was found, just below the external ring.

Feb. 11th. Patient was perfectly comfortable for three or four days, and the wound had almost entirely healed by first intention. On the 23rd the bowels were moved by castor oil; and at night he had a rigor, followed by swelling, pain, and tenderness at the seat of the wound, and in the inguinal glands of *both* groins, with *œdema* of integuments of penis. After free poulticing, some of the adhesions at the upper part of the wound gave way, a discharge of pus appeared, and the bad symptoms gradually disappeared. The wound has now healed soundly, and patient is wearing a truss. There is a little fulness at the situation of the testis.

Remarks.—This very rare form of hernia, usually designated, for some unknown reason, as "Infantile," was rendered still more interesting, in this case, by the fact that the *testis* occupied just the position where the hernial protrusion was expected to present itself, on dividing its usual coverings, and also by the coincidence of a regular hydrocele. These complications likewise rendered the diagnosis, at first, a little uncertain, as it was pretty distinctly made out, before the operation, that the testis occupied about the position where it was subsequently found, and an injury of this organ, occupying such a location, would give rise to many of the symptoms complained of. Some apprehension was also felt, after the operation, lest the testis, imprisoned by the consolidation of the tissues about it during the healing process, might occasion future trouble from its exposed situation; but, up to this date, no inconvenience has been experienced, and a truss is worn with perfect comfort.

COLD SPRING, Oct. 4, 1869.

THE REFILLING OF PHYSICIANS' PRESCRIPTIONS.

A PAPER READ BEFORE THE EAST RIVER MEDICAL ASSOCIATION, SEPT. 7, 1869.

By VERRANUS MORSE, M.D.

A PRESCRIPTION, when sent to the apothecary, becomes an order for medicine, and we may use the word *fill* in connection with it, as we do with orders for merchandise; and by using refill instead of renew, we can avoid the necessity of employing the term *prescription* to designate at one time the written formula by which the medicine ordered is to be prepared, at another the medicine itself, and again both the medicine and the manuscript at the same time.

In the common sentence, "The renewal of physicians' prescriptions," the single word *prescriptions* is compelled to do double service; it signifies not only the medicine renewed, but also the formula for preparing it. Guided by its classical derivation, I shall employ it in the latter sense only.

With these preliminary explanations, I will proceed briefly to consider four questions which seem to embrace the whole subject under consideration.

1st. Who is the owner of a written prescription after it is once filled?

2d. Has any one a right to refill a written prescription?

3d. Who are injured by such refilling?

4th. What makes a law to prevent refilling necessary?

Who, then, is the rightful owner of a prescription, after it has been placed in the hands of the apothecary, and the patient for whom it was written has received the prescribed medicine?

A prescription is designed—not to conceal a secret—but to inform the apothecary what medicine the physician wishes the patient to receive, and by what formula he wishes it to be prepared. It is an order for a definite quantity of medicine, prepared in a certain manner.

The physician is under no legal obligations to write a prescription; he may prepare the medicine himself, or he may give the apothecary verbal directions for its preparation; or, if he chooses to write a prescription, he is under no obligations to give it to the patient; he may send it to the drug-store himself and direct the patient to send there for the medicine.

To relieve himself from the necessity of keeping and preparing medicine, or of going or sending to the drug-store whenever he wishes to prescribe, he writes a prescription, and the same messenger takes it to the apothecary that goes to the drug-store for the medicine.

If the physician puts the directions for using the medicine on the prescription, he orders the apothecary imperatively—*signa*—to write them out to accompany the medicine, which would be unnecessary if the patient could retain the prescription.

The physician charges no more for advice when he writes a prescription, than he does when he furnishes the medicine.

It is evident, then, that the patient buys the physician's advice only, which advice is utilized and made efficient—if it is made efficient at all—by the medicine, and not by the written prescription. The manuscript is merely a circumstance—a matter of convenience to the physician.

When the patient has once obtained the medicine ordered, whether by a written prescription or otherwise, he has received all that the fee he pays entitles him to, and all the medicine that prudence permits him to use without further advice from his physician.

Neither does the apothecary buy the prescription; he simply sells the medicine prescribed, charging the same whether he receives a written prescription or not—he is only the custodian of the prescription until its owner may call for it.

Plainly, then, the prescription, after it is once filled, belongs to the physician who wrote it, just as a check which he writes belongs to him after his banker has once cashed it.

Has any one a right to refill, or to order another to refill, a written prescription?

If a patient, by consulting his physician once, could obtain and was willing to pay for a prescription for medicine that would meet all the indications of his disease, however long it might continue, and all the indications of all apparently similar diseases, which he or his friends or neighbors might be afflicted with in the future, he would be justified in asking for a renewal of his medicine,—a refilling of his prescription. And he could afford to pay well for such a prescription, for it would virtually constitute him a physician, with the particular variety of disease prescribed for, as his specialty; and the physician selling a prescription designed for such use, would expect to be well paid, since he would forfeit his professional standing by such sale, as it would be equivalent to dealing in proprietary medicine, or a formula for it. But no patient pays for any such prescription, or any prescription at all; and no patient can obtain any such prescription, since all diseases are liable to frequent changes, either from their own natural progress, or from the modifying influence of the medicines used; and every change in the character of a disease requires a corresponding variation in the treatment; and the same skill is needed to adjust the variations that was necessary to devise the original treatment.

A patient, then, has no right to order a prescription to be refilled, copied, or returned, because it is not his property, and it would not be judicious for him to have it refilled, even if it was his, without consulting his physician.

The apothecary has no right to refill a prescription on his own account, as he is in no sense the owner of it; he has no more right to refill it than a bank has to recash a check.

The physician has no moral right to order a prescription to be refilled, because by so doing he increases the chances—none too small before—for mistakes to occur. After prescriptions are filled, they are usually pasted or copied into a book, several on a page, and the apothecary refilling one has all of these before him, instead of one separate and recently written; and the figures on old labels often become soiled, or in some way partially obliterated, or they may be copied incorrectly at first, so that the apothecary is in danger of refilling the wrong prescription. Besides, by carelessly ordering his prescriptions to be refilled again and again, for different members of the same family, a physician is liable to create the impression among his patients, that success depends more on a few lucky prescriptions than it does on knowledge and skill; and this impression opens a wide door for patent nostrums and empiricism, and thus ruins the health of multitudes, and destroys the lives of many.

If the physician thinks the same prescription is needed again, he can very readily rewrite it; if he orders it refilled, it is only because he thinks it is easier for him; but he is employed to do what is best, not merely what is easiest; he cannot reissue an old check to avoid the trouble of writing a new one. If, then, the physician who owns the prescription has no right to refill it, certainly the apothecary and the patient, who do not own it, can have no such right.

Who are liable to be injured by the practice of refilling prescriptions?

A physician prescribing for a patient selects such medicine as he thinks needed at the time; but the medicine that is useful at one stage of a disease, may be useless or even injurious at another, and, by the prolonged use of medicine that was needed at first, but inappropriate afterwards, the disease may pass the period when it might have been readily controlled, and reach a stage where it will require weeks of attendance, and will perhaps result in death.

The continued use of the same medicine, obtained by repeated renewals without the physician's knowledge, reduces the treatment of the most skilful practitioner to a level with that of the merest pretender, who has but one medicine for a disease in all its varieties and complications; and the patient who attempts to save money by such means, does it at the risk of time, money, health, and life.

The physician may lose a few visits, in some cases

by this practice, but he is more than compensated for these by the increased attendance made necessary by it in others. But he is seriously harmed by the loss of patients by death, and the loss of families through loss of confidence resulting from injudicious renewals of medicine, for which he is unjustly held responsible. The renewals that diminish his income are those that sacrifice the lives of his patients; the severest blow that falls on him is but the rebound of a still heavier one that has already fallen on them.

The apothecary is benefited during the patient's lifetime, because he will take much more medicine than he would with proper advice; but this is more than counterbalanced by the premature death of the patient, and the consequent loss of his patronage.

If, then, patient, physician, and apothecary all are injured by such a practice, it is evident that it should be discontinued. But why is a law needed to put a stop to it? Why will not the injured parties themselves stop it without a prohibitory law? Because, for the time, each believes he is benefited by the renewal.

The physician orders a prescription to be refilled, to save the trouble of rewriting it, and, too often, to save the trouble of examining the patient.

The patient orders it refilled to get his medicine and avoid the physician's fee.

And the apothecary refills it, to secure the sale of the medicine.

A law, then, is needed to restrain the parties that are injuring themselves and each other, under the impression that they are benefiting themselves, and it is needed in order that the practice may cease immediately and universally.

And this law should require a prescription to embrace, besides the formula for the medicine, directions for its use, the patient's name, the date, and the name of the physician; and it should require the apothecary filling it to date and sign it, and to preserve it as long as the law makes a physician liable for a suit of malpractice in any case.

A prescription would then be important documentary evidence, retained in the hands of a third party. At the expiration of this time, it should be destroyed, or returned to the physician, if he requests it.

Original Lectures.

INTRODUCTORY ADDRESS,

DELIVERED AT THE OPENING OF THE WINTER SESSION OF THE WOMAN'S MEDICAL COLLEGE OF THE NEW YORK INFIRMARY, OCTOBER 5, 1869.

By A. B. BALL, M.D.,

PROFESSOR OF MATERIA MEDICA.

LADIES OF THE COLLEGE CLASSES — "The Genius of Medicine," says the late Doctor John Watson, "sits pensive and alone, her finger on her lips, as if admonishing her votaries by the example of her silence to bury deep within the recesses of their bosoms the disclosures of the sick." But custom, which is more imperious than laws of inheritance, demands that the medical students of the present day shall start upon their career with words of welcome, encouragement, and advice sounding in their ears, and this must be my excuse for appearing before you this evening in the discharge of a duty foreign to the pursuits of my life.

I shrink from the task assigned me by my colleagues of giving you advice upon so important a subject as medical education. He who would play the counsellor must needs enforce his words by the weight of age and experience; and even when coming with the support of authority, mere advice must yield in the extent and abiding character of its influence to the force of the living example. "Note the cry," says a Chinese author, "but the rising of the wild-duck impels the flock to follow him in his upward flight." Nor can I hope by any simulation of eloquence to reach and to give a permanent impulse to those deep-seated forces of your nature which urge to long-continued action. I shall take it for granted, then, that you come to your life-work fully appreciating its importance, and shall ask your attention to a few thoughts, partaking of the character rather of suggestions than of formal advice, upon the nature of the studies which will engage your attention, and upon the best method for their pursuit.

While the subjects to be studied are more numerous, and the fund of knowledge is much greater in the medical than in either of the other two learned professions, law and theology fall far behind your chosen science in the enthusiasm with which it inspires the student. The poet Goethe, in his autobiography, speaking of the time when he was studying jurisprudence at Strasburg, says: "Most of my fellow boarders were medical students. These, as is well known, are the only students who zealously converse about their studies and profession. This lies in the nature of the case. The objects of their endeavors are the most obvious to the senses, and at the same time the highest, the simplest, and the most complicated." By the very nature of the subjects with which they are concerned, the legal and theological are, to a considerable degree, stationary sciences. The Pandects of Justinian, the Commentaries of Blackstone, and the common or unwritten law, which among the older nations has been the slow growth of centuries, are regarded as authorities by the one; the Bible and the writings of the early fathers by the other profession. Each of these sciences rests upon a basis laid in the moral nature of man from the beginning. Law deals with man's duty to act justly by his neighbor. Religion occupies a higher plane and teaches the grander duty of love to God and our fellow-men. These subjects are the highest and the most important that can engage human thought, and it is partially for this reason that they have earliest received attention, and have attained a comparatively complete development. The cultivation of the physical sciences, and especially of the science of medicine, which is the combination and culmination of them all, is a work of later growth. Nature, by which term I mean the material as distinguished from the spiritual universe, yields her secrets less to logical insight than to patient observation. God has given us no inspired prophets or teachers who can reveal to us the mysteries of nature by a direct revelation from Himself, nor can reason ever claim to be as infallible as the human conscience, the French encyclopædists to the contrary notwithstanding. Hence it has happened that for centuries the study of natural phenomena was pursued only by the tardy process of the elimination of errors, and it was not until the time came for the invention of the printing-press, by which the thought of one man became the property of every other, and for the construction of numerous apparatus for assisting observation, that accuracy in investigation became possible. When this point was reached, men were to a great degree freed from the incubus of uncertainty, and scientific progress became more rapid. Each natural science contributed to the development of every other, and at last medicine has shared in the general impulse, and has

now entered upon an era of restless activity. Discovery follows discovery in such rapid succession that the authority of yesterday is obliged to give place to the observer of to-day. The reproach of Bacon, that the science of medicine is "more labored than advanced," is daily losing its force, thanks to the thousands of skilful workmen who, by united efforts, are laying the sure foundation of the shapely pile which the dawn of an auspicious and not far distant morning shall irradiate in all its glorious symmetry. This rapid accumulation of facts gives to the pursuit of our science a zest which does not attend the study of the other professions. Do not misunderstand me as underrating either their importance or their capacity for the cultivation of the higher powers of the mind. The lawyer will always find ample scope for his genius and learning in solving the intricate problems of the social and political relations of men; and the clergyman in penetrating and applying to human wants those divine mysteries before which the angels bow their faces and adore. But the human mind is eager for new truths. It takes less pleasure in the application of familiar truths than in the discovery of those hitherto unknown, and hence the study and practice of our profession afford an absorbing interest which amply justifies the opinion I have quoted from Goethe. I welcome you, then, to a profession worthy of your choice—worthy in being great enough to engage all your powers of mind, and in rewarding patient toil and investigation with fruitful discoveries. You will find, as those who love truth for its own sake have always found, that "wisdom's ways are ways of pleasantness," and if the doors which lead to the professions of law and theology have been closed against you, you may congratulate yourselves that the Hobson's choice which is left is no less honorable, no less useful, and no less full of reward.

Much might be said in regard to the importance of each of the branches of study composing the collegiate course; but the neglect of chemistry and of the physical sciences is so common among medical students that I desire to call your special attention to the intimate connection of this department of knowledge with the progress of medicine. The current of scientific thought is setting in this direction, and, judging by present indications, medicine can hope for more assistance from this quarter than from any other. Dr. McLeod, speaking of the complexity of the human body, has compared it to an infinite assemblage of circles, every one of which touches at one or more points all the rest. We might very properly extend the comparison by making these human circles intersect at innumerable points those other assemblages which comprise the rest of nature. Our bodies are not isolated organisms—they are related to the universe of matter by the intimate association of certain natural forces. Every one recognizes the fact that we obey the law of gravitation towards the centre of the earth as truly as does the stone we cast into the air, and that chemical reagents, such as nitric acid, act upon our living tissues in obedience to chemical laws; but there has always been a great reluctance to admit that the same forces which carry on the processes of nature about us are the springs of action within our own bodies. In the early ages of the world, and the same is true to a certain extent at the present time, men regarded the soul as the vivifying principle of the body. When reflection showed that this idea was untenable, because it failed to explain the phenomena of life in the lower animals and in the vegetable kingdom, a vital force or principle was imagined, —a subtle agent breathed by the divine command into the nostrils of man at his birth and perishing at his death,—an agent responsible to no known law, defying investigation,—the final and indeterminate source of all the mysteries of life. The progress of the natural sciences, and their application to the study of vital phenomena, have shown, however, that many actions within the body, which were regarded as the results of a vital principle, in reality depend upon known natural forces. The number of such phenomena which are supposed to depend upon this occult principle for explanation has been constantly diminishing. Up to the time of Lavoisier, at the close of the last century, the functions of respiration and of the circulation of the blood were regarded as carried on by this force. We now know that the function of the lungs is essentially a purely chemical exchange of oxygen and carbon, carried on by the law of the diffusion of gases, and that the heart is merely a stationary engine propelling the blood by the transmutation of chemical into mechanical force. The same revolution of thought has taken place in regard to the nature and origin of the muscular force. Dr. Bence Jones informs us that "according to the earliest ideas, muscular motion was produced by the soul." "Afterwards the motion was considered to be created by a definite something, a vital force or fluid, capable of quitting the muscle a short time after the body was dead." According to recent investigations, however, this motion must have had its origin in some antecedent equivalent motion. "No one," says Dr. Frankland, "possessing any knowledge of physical science would now venture to hold that vital force is the source of muscular power. An animal, however high its organization, can no more generate an amount of force capable of moving a grain of sand than a stone can fall upwards, or a locomotive drive a train without fuel." The source of this muscular power has been conclusively proved to be the energy or chemical force stored up in the food we eat and the air we breathe.

These facts bring the human body within the action of a general law which, in the extent of its application and the vastness of its results, is the most important discovery of the present century. In 1850 Dr. Joule worked out the problem of the mechanical equivalent of heat. Our distinguished countryman, Count Rumford, in a paper published in the Transactions of the Royal Society in 1798, had anticipated these results, but had failed to give them the precision of a general law. Dr. Joule, by a series of delicate experiments, demonstrated that a given amount of heat would produce a given amount of work, and that the relations between heat and mechanical force could be expressed in mathematical terms. From this fact, and from similar ones in regard to other natural forces such as electricity, magnetism, light, sound, and chemical force, was deduced the general law of the conservation and correlation of forces, —a law according to which forces may be converted into each other, but are themselves indestructible, the total amount of force remaining always a constant quantity. This wonderful discovery is far more important than it at first sight appears to be. It gives precision to scientific investigation. When, for instance, the effort is made to ascertain how much mechanical work can be obtained by the combustion of a given quantity of fuel, if the calculation prove erroneous, the experimenter cannot excuse himself by saying that a portion of the heat has been destroyed. Every one knows that in the steam-engine only a small portion of the heat is available for the purpose of propelling the engine. The rest of the heat has passed into various other modes of force, and the problem cannot be considered as solved until this missing portion has been satisfactorily accounted for. Now there can be no doubt that this law of the indestructibility of forces and their convertibility into each other—a law of wider and grander

generalization than any other known to us—is fully as applicable to vital as to material phenomena; and one of the greatest advantages resulting from this fact is, that those who investigate the former class of actions are not permitted to take refuge behind an occult vital principle, which can manufacture and destroy as much force as it pleases, but are compelled to rigidly account for the whole amount with which their investigation started. A man daily eats and drinks a certain number of pounds of solids and fluids, and inhales a certain quantity of oxygen and nitrogen from the air. How much of these substances goes to supply the waste of tissues? and how much of their inherent forces is converted into heat? how much into muscular force? how much into electricity? how much into nervous, how much into mental, force? The complete solution of these problems is, of course, at present far beyond our reach. The whole subject is still in its infancy; yet we have already satisfactorily accounted for the origin of the body's heat and muscular force, and analogy leads us to conclude that the other forces have a similar, and perhaps the same, explanation.

Here we are met by the question, How far are the natural forces with which we are already acquainted, such as chemical force, electricity, heat, light, magnetism, etc., competent to explain vital phenomena? Is the life of the body merely the resultant of these forces? or must we suppose that in addition to these there is another, which may be called vital, distinguishing animate from inanimate bodies? It is only within a comparatively recent period that the separate existence of a vital force has been called in question, and it would be useless to dogmatize upon a subject which is still involved in so much obscurity. On the one hand it may be urged that, while we are able to estimate the quantity and intensity, and to determine the laws which govern the manifestations of the so-called physical forces, in regard to a vital force we have not only failed to ascertain its laws, but are even uncertain as to its existence; that it is a very significant fact that by the more accurate investigations of late years one function of the body after another has been taken out from under the control of a supposed vital force as its cause, and has been referred to the action and interaction of known physical forces; finally, that the best results thus far obtained in the study of vital phenomena have been acquired by entirely ignoring the existence of a vital force, and that since so much has already been accomplished towards the explanation of life upon physical principles, it is surely reasonable to expect that a more perfect knowledge of natural forces will account for what still remains unexplained. On the other hand it may be argued with much plausibility that, granting the applicability to the human body of the physical laws which govern inanimate matter, there are still other phenomena never exhibited by dead matter and explicable only on the supposition of a special force which, it may be, transcends physical forces in the same way that chemical force transcends mere mechanical motion. The power of growth and of transmitting qualities by inheritance, and especially the capacity for complex development by the association of organs having a different molecular structure, for the accomplishment of a common purpose,—these powers, it is maintained, constitute a class of actions different in *kind* from those exhibited by inanimate matter. I do not know that it is as yet possible to explain these special peculiarities of vital actions upon any other hypothesis than that of a vital force; but it is worthy of note that those physiologists like Doctor Carpenter, and zoologists like Professor Owen, who still maintain a belief in a vital force as distinct from physical force, restrict it to a mere directive agency, which has no power in itself to carry on the functions of the body, no power to generate or destroy heat or muscular force or any of the forces at play in the body, but only to work with and through them to the accomplishment of a desired end. But granting the existence of a vital force, analogy could lead us to suppose that, like the known physical forces, it is subject to the law of the conservation and correlation of forces—a law which, so far as we know, is applicable to all the forces inherent in matter. Indeed it has been conjectured that all the various forces employed by the Creator to carry on the processes of nature are but so many forms or modifications of a power emanating directly from the divine mind. Professor Owen says, "it is analogically conceivable that the same cause which has endowed His world with power convertible into magnetic, electric, thermotic, and other forms of force, has also added the conditions of conversion into the vital mode."

To some minds these efforts to solve the mysteries of life savor of materialism. Such persons regard as little less than impiety all attempts to ascertain the nature of that breath of life which God has breathed into all His living creatures. That our bodies are inhabited by a soul made after the spiritual image of God, we know both from divine revelation and by our own consciousness. What God hath joined together let not man put asunder; but, looking at the subject from a non-scientific point of view, what additional dignity does it give to the immortal part of our nature to make it the drudge of the material body? Whether is it more consistent with our origin and destiny to suppose that the soul digests the food, labors at the heart pumps, carries the telegraphic messages from brain to limb, and performs the uncleanly offices of the body; or to suppose that God has honored the soul by placing it in command, with servants quick to do its bidding? These servants of the body, which we call the vital forces, are legitimate objects of scientific investigation; and though with our present finite powers we may never be able to conceive their nature,—just as we fail to comprehend the nature of the other immaterial forces, such as electricity, light, and heat,—it is reasonable to hope that further investigation will reveal to us the laws which govern these vital actions, and how far they are correlated with, or differ from the physical phenomena of the universe of matter.

My time will not permit me to enter into further details illustrating how much has been already gained by the study of the body as an organism governed by natural laws. Suffice it to say that the whole of our present knowledge of physiology has been acquired by pursuing this method of investigation, and it needs not the gift of prophecy to foretell that the next half century will witness results of which we have now only a faint conception. Just in proportion as we understand the laws which govern the forces of the human body, shall we be able to appreciate and control those derangements of them which we call disease. Sir James Simpson has expressed the hope that, by the application of the natural sciences to the study of health and disease, the time will come before long "when physicians shall look upon the cure of some diseases as simply a series of chemical problems and formulæ; when they shall melt down all calculi, necrosed bone, etc., chemically, and not remove them by surgical operations;" "when they shall be able to stay the ravages of tubercle, blot out fevers and inflammations, and melt down morbid growths; destroy all morbific organic germs and ferments, annul the deadly influence of malaria and contagions, and by these and various other means markedly lengthen out the duration of human life;" "when the rapidly increasing length of life shall begin to fulfil that

ancient prophecy, 'the child shall die an hundred years old.'" The coming medical millennium can be brought about only by the united efforts of the medical profession, and it should be your ambition to contribute your portion to the happy result. Even if it be not your good fortune to add original investigations, you cannot hope to keep abreast with the progress of medical science unless you have acquired the familiar knowledge of chemistry and physics which is necessary to understand the discoveries made by others more fortunate than yourselves.

With these few words of caution against neglecting an increasingly important branch of your studies, let us now proceed to consider what, in the broadest sense, is the purport of the education you have come here to acquire. Its object is twofold,—to acquire, first, the scientific knowledge pertaining to your profession; and, second, the art of applying such information to the prevention and cure of the diseases of your patients.

The first of these objects is to be gained mainly through the exercise and cultivation of the faculty of memory—a faculty, be it remembered, which is subject to the same laws of growth as are all the other powers of mind and body. There is such a thing as overtraining in the cultivation of the memory as truly as in the development of muscle for boat-racing. Some men of omnivorous minds, like the two Scaligers, father and son, can neglect with apparent impunity all common rules of mental dietetics; but such cases are the exceptions. The average mind suffers from a wholesale and indiscriminate ingestion of facts; and, to the reproach of our system of medical education be it said, there are far too many cases of aggravated mental dyspepsia among the recent graduates of our medical colleges. The evil is, to a great degree, an unavoidable one, owing to the necessarily short term of study and the vast amount of material to be appropriated by the mind, yet the observance of a few precautions will materially diminish the danger; and taking advantage of the absence of one of my colleagues, I shall so far trespass upon her province as to give you a few hints upon mental *hygiene*—suggestions which I offer to you with all the more confidence, as they accord with my own personal experience in study. To those of you who are conscious of deficient powers of memory (and I assure such of my hearty sympathy), let me suggest that far more may be accomplished by a proper discrimination between what is of actual and what is only of relative importance in your studies, than by a futile attempt to master, in so short a time as three years, all the endless details of the medical sciences. Your medical knowledge cannot be too comprehensive or too minute, but any attempt to urge your memory beyond a limit which experience will prescribe to you, will certainly result in a confusion of thought which will render your acquirements utterly valueless for useful purposes. The time has already come in our profession when no single mind can grasp and retain the innumerable details of the various departments of medical science; and the necessity for a division of labor has given rise to a number of specialties which have proved to be as advantageous as they were indispensable. How much more is a judicious discrimination necessary to the student before whom the whole field lies still unexplored! This misdirection of their powers by medical students would be oftentimes amusing, were it not unfortunately so common, and so fraught with danger to a symmetrical education. I recollect a fellow-student, who, unfortunately ignorant of the Latin language, spent an afternoon in trying to remember the *iter e tertio ad ventriculum quartum*, and yet would have been puzzled to tell whether it was the dura mater or the pia mater that lay in apposition to the brain. I recall another enthusiastic student who could give with facility the names, origin, and insertion of the twenty muscles of the forearm; and yet if Harvey had asked him the course of the circulation of the blood through the heart, the old anatomist would have been shocked to find how little his labors had been appreciated. These two illustrations are taken from the science of anatomy, in which the distinction in regard to the relative importance of the details is often difficult for the inexperienced student; but in those sciences which are based upon certain general laws or principles the discrimination is more easily made. Here especially it is desirable to make haste slowly—to lay a solid foundation before attempting to rear the superstructure. The principal reason why chemistry so often proves uninteresting to students is, that they neglect to make themselves familiar with the elements of the science, and, consequently, soon find themselves in a worse than Bunyan's Slough of Despond. Master the general principles of a science, and you by this means call to your aid the law of the association of ideas—a law intimately connected with the action of your powers of memory. We unconsciously recognize this law when we adopt certain well-known expedients for remembering things likely to be forgotten; as, for example, tying a string to the finger, or a knot in a handkerchief, or placing a piece of paper in a conspicuous part of a room. So in your medical studies, if you have acquired the elements of a science, you will find that the memory will retain a large number of apparently irrelevant facts through their association under and subservience to its general laws. It is a common practice among medical students to take notes of lectures. Individuals differ widely in regard to the benefit or injury they receive from this habit. Florence Nightingale, an authority that will justly have much weight with you, says: "If you find it helps you to take notes, by all means do so. I find it more often tames than strengthens memory and observation." This remark was evidently intended to apply to the custom of taking *full* notes of lectures, and I think most who have adopted this practice will agree with her conclusion. The mind cannot easily follow the train of thought when the attention is occupied with the mechanical transfer of the verbal expression to paper. But there is another method of note-taking which attains the same end and yet leaves the mind free to follow the lecturer. I refer to the practice of jotting down the leading thoughts in the lecture and filling in the details at a subsequent time. Such a habit is an invaluable aid to the memory, and by passing the subject under review, fixes it more permanently in the mind.

But the mere retention of scientific facts by the memory will not of itself qualify you for the practice of your profession. Many years ago, before the time of medical colleges in this country, Dr. Bird, of Connecticut, was consulted one day by a young physician, who had recently been his office student. "Doctor," said the young man, "I wish to ask your advice about a case of fever under my care. I have implicitly followed the instructions you used to give us. The first day the patient got blue pill, the second day a purge, and the third day he was put upon a course of calomel, and yet he has been growing steadily worse from the start. Why have I been less successful than you used to be?" "Last spring," replied the old doctor, evading a direct answer to the question, "I was driving up to Litchfield one day when the roads were very bad, and my wagon ran into a deep rut. My horse tried in vain to pull me out, and I was at last obliged to get the assistance of some men

near by, who pried my wagon out of the rut with poles. A few days ago I drove over the same road for the first time since the accident. The rut had disappeared, but when we came to the spot where it had existed several months before, my horse shied and made a wide circuit around it." "A very good story, doctor," said the former pupil; "but I fail to see what connection it has with my case of fever." "It has this connection," replied Dr. Bird: "my horse exhibited a very good memory, but very poor judgment, and that has been the trouble with you." Now this sound judgment, the lack of which Dr. Bird censured in his pupil, is as essential to the successful practice of the medical art, as a good memory is to the acquisition of medical science. Trousseau is reported to have said in one of his lectures: "Gentlemen, let us have a little less science and a little more art," meaning, no doubt, that the current is setting so strongly towards purely scientific investigation that we are in danger of neglecting the practical application of our knowledge to the relief of suffering and the cure of disease. The proper object of all education is not merely to store the mind with knowledge, but, as the etymology of the word indicates, to so draw out and cultivate the various mental faculties that they shall constitute an harmonious and self-reliant instrument of thought. We often speak of a person as being a man of good judgment or of strong common-sense; as if he differed from his fellows either by the possession of some mental faculty not common to the whole human race, or at least by the superior development of some one of the usual faculties of the mind. A moment's consideration will show the incorrectness of this opinion. A good judgment implies quickness in detecting things which escape ordinary attention,—skill in perceiving the differences and resemblances of objects presented to the mind, and the power to draw correct logical inferences; so that Dr. Bird's model physician must be one whose faculties have attained a happy balance, rather than an undue cultivation of some to the neglect of others. This condition of mental equilibrium is of the highest importance to the physician, for, as medicine is not an exact science, but is based upon probabilities, he has need of a sound understanding to rightly estimate the evidence before him; and when this sound understanding does not already exist as the result of natural endowments, it is the true function of education to supply the deficiencies. It seems to be too often taken for granted that in this respect professional differs from academic education,—that the student comes to the study of his profession with a mind disciplined by previous training, and that henceforth his instruction is to be conducted on the Gradgrind system. But mere book knowledge never yet made a good physician, for the reason that no medical literature, however extensive, can record the infinite variety of disease. Since the earliest mentioned case of disease—the indigestion in the first pair caused by the eating of the forbidden fruit—there have never been two persons presenting exactly similar morbid conditions. It is a frequent complaint of young physicians just entering upon practice that they seldom meet the typical cases of disease recorded with such precision in the books. Your education must qualify you, then, to apply your remedial agents to conditions which are constantly varying. Much aid can and will be given you by systematic instruction in hospitals and dispensaries, but the greater part of your skill in the medical art must come to you through your own personal experience—an experience to be gained by the careful and analytical observation of the cases which come under your care. This habit of studying individual cases of disease, so that the physical and mental peculiarities of the patient, and the variations of the symptoms from the ordinary type, shall become a guide to you in the treatment; this habit, I say, of close observation cannot be begun too early in your student career. But observation, in the sense in which I have used the word, implies something more than the passive reception of information coming through the channels of the senses. When Newton saw the apple fall, he saw more in that familiar occurrence than the separation of ripe fruit from the tree. The passenger on board of a ship at sea sees streaks of light and strata of clouds, and admires the effect of light and shade; the captain looks at the same phenomena and sees a hurricane and a possible shipwreck. A mother seeing her child fretful by day and restless at night, and with a persistently irritable stomach, ascribes the symptoms to an attack of indigestion; the more practised eye of the physician sees the child hurrying into an attack of fatal inflammation of the brain. The Italian artists have a saying that a man cannot see more than he knows—it is just as true that he often will not see what he does not seek to know. The habit of letting the senses do the work intended for the brain is a thoroughly pernicious one. It lies at the foundation of all superstitious beliefs. When a person tells you that he has "seen the thing with his own eyes," he considers the subject as quite beyond the domain of argument. Luther was so firmly convinced that he saw the devil standing before him *in propriâ personâ*, that, "to the dismay of the housemaid, he resolutely threw his huge ink-bottle" at what was a mere fiction of his disordered imagination. When vaccination was first practised, there were not a few persons who stoutly asserted, and doubtless honestly believed, that they had seen cow-horns growing out of the foreheads of children who had been vaccinated. When Hahnemann saw patients recovering after the administration of the decillionth of a grain of potentized oyster-shell, did he not appeal to this irresistible evidence of the eyesight? Careless, superficial observation—the too common error of mistaking the *post-hoc* for the *propter-hoc*—has been the source of endless confusion in the science of medicine. Do not trust too much to the evidence of your senses. It may not be advisable to cast out an eye which has offended you in this respect; but your duty to science and to your patients demands that you bring these apparent facts into the court of your mind, sift the evidence thoroughly, and pass upon it an intelligent judgment of condemnation or approval.

It is unnecessary for me to dwell upon the mechanical portion of your art. Its importance is so obvious that I trust your own good sense will induce you to thoroughly qualify yourselves in this part of your professional duties. Many a surgeon has lost the confidence of his patient by an unskilfully applied bandage or an ill-adjusted splint. Patients are better able to judge of your mechanical dexterity than of the medical knowledge you keep locked up in the recesses of your brains, or expose with bewildering effect in the technical terms of science.

But there is still another branch of the medical art, the importance of which can hardly be overestimated. To be in the highest degree successful in the practice of his profession, the physician must be a close student of human nature; he must study the patient as well as his disease; he must be able to gain his confidence; to humor his eccentricities, or to control them as occasion demands; to give appropriate caution or encouragement; in a word, he must qualify himself to be the "minister and interpreter" of human nature in all its varied phases. For the acquisition of such skill there is no better school than the practice of our profession. The physician sees

the artificial aspects of life much less frequently than does either the lawyer or the clergyman. He has access behind the scenes—the multiform evils of a vicious life, the shock and distress of domestic estrangements, the passions and the unlovely traits of the human character, are undisguised from him; but, on the other hand, no one sees so much of the tenderness and true nobility of our nature. Such a knowledge of human nature as shall bring you into more complete sympathy with a suffering humanity will make you wiser and more skilful physicians. Our art includes within its scope something more than the prescription of drugs and the regulation of the hygienic surroundings of the patient. The couch of protracted suffering—the chamber of death need more than these. It is easy, of course, to indulge in platitudes and sentimentality in a matter of this kind. The rough contact with the world, and the necessity of practising your profession as in the main a mere matter of business, will speedily remove any thin varnish of artificial sentiment with which men are wont to disguise their hopes of worldly gain and honor. The duties of a physician are ordinarily of such a nature that they do not, and should not, appeal strongly to the emotions; but there are occasions, and not infrequent ones, when sympathy delicately expressed, or a face bright with the smile of encouragement, or brave words which carry fortitude into the heart of the hopeless sufferer, may be of far more avail than "poppy or mandragora, or all the drowsy syrups of the world." This portion of your art cannot be taught you by formal lectures or by the aid of scientific apparatus. Your own hearts must do the work for themselves. Beware lest the cares of life, and the anxieties of an arduous profession, dull the fine edge of your feelings; lest indifference gradually take the place of those kindly affections which make a physician loved as well as admired. Schiller, in his noble drama of Don Carlos, represents the Marquis of Posa as sending a farewell message to the prince, his friend and pupil: "Tell him," says the dying courtier, "that when he is a man, he must reverence the dreams of his youth."

In this connection allow me a single thought more, in addition to what I have already said, upon the subject of medical education—a thought so important in its bearings upon your future success, that if I can induce you to carry it into your student and professional lives, the result will be an ample compensation to you for the tedium of this evening, and a justification to myself for having added another to the already sufficiently numerous lectures of the college course. The thought is simply this—that success in the practice of your profession is mainly a matter of care and painstaking. It would be idle to deny that superior endowments of mind do give one person advantage over another in our profession, as they do in every other occupation in life. An accurate, retentive memory, the happy balance of the mental faculties which we call a good judgment, and natural mechanical skill, must necessarily give a certain superiority to their possessor. But granting all this, it still remains true, that industry in study and thoroughness in the application of knowledge thus acquired, go farther than mere genius to make a successful physician. Mr. Savory, in his eloquent address to the students of St. Bartholomew's Hospital, at the opening of the session of 1866, says, "I really believe that a very large proportion of the blunders we make in practice arise simply from want of care and pains—from heedless observation and slovenly investigation. . . . One man detects something which another has overlooked, simply because he has more carefully searched for it." These are words full of meaning. Let us hope that you may never learn their truth and importance by the painful process of personal experience.

Through what strange vicissitudes and fluctuations of public regard has our profession passed since Apollo first taught his son the healing art. It cannot be denied that much of the exaggerated reverence with which our profession was regarded in times past has disappeared, probably never to return. Æsculapius was deified by the Greeks, and for centuries after his death the practice of medicine was an adjunct to the duties of the priest, and shared in the sacred character attached to religious rites. In more modern times the sentiment of reverence for medical science was maintained partly by gross ignorance, on the part of the public, of the laws of health and disease, and by their superstitious regard for all knowledge superior to their own; and partly, it must be confessed, through the assumption by physicians of certain peculiarities of dress and an air of authority which were considered appropriate to a class holding the scales of life and death. The golden-headed cane, the oft-consulted snuff-box, the gilded chariot and the oracular physiognomy, which a century ago constituted a good part of a physician's stock in trade, have vanished with the progress of knowledge, which has taught us how little we know of disease, and how much less of its successful treatment. But while we as a profession have been learning the virtue and necessity of humility, the public, on the other hand, have not merely lost their ancient reverence, but have reasoned that since there is so little in medical science, one man can practise it as well as another. Accordingly we find that our State laws permit our cities and towns to swarm with a class of characters whose knowledge bears an inverse ratio to their pretensions. The clergy, from whom, as an educated class, we expect better things, shake off the fetters of orthodoxy when they descend from their pulpits, and lend the weight of their influence to medical heresies. The patient himself purchases a box of specific globules, and one of the numerous books entitled "Every Man his Own Physician" (Southey says they should read "Every Man his Own Poisoner"), and considers himself proof against every ill that flesh is heir to. The more skeptical he is in regard to the physician's skill, the greater his confidence in his own. This distrust of medical science was an inevitable result of centuries of superstitious reverence. The signs of the times indicate, however, that the fashionable skepticism of late years is already beginning to give way to a more reasonable faith; yet there still exists in the popular mind a thorough misapprehension of what are the true claims of our profession at the present day. The public sees the ancient landmarks of our profession swept away; long-continued modes of treatment abandoned one after another; indecision and uncertainty where all was once boldness and self-confidence. It sees medical sects springing up, each claiming to have stolen from the gods the Promethean spark with which to renew the flickering fire of a diseased humanity. But it does not see nor can it appreciate the vast amount of labor which in Europe and in this country is being expended by men who have no petty theories to advocate, and who are silently but solidly laying the foundation upon which an exact medical science can be reared. We are often reproached with the inexactness of our knowledge of the art of curing disease by those who do not understand the difficulties which beset the subject. There are no rival schools in anatomy, it is said; why should there be any in therapeutics? Men do not differ about the rule of three or about the reaction of sulphuric acid upon magnesia;

why should there be any difference of opinion about the treatment of typhoid fever? Dr. John Brown, the author of "Rab and his Friends," has answered this question in one of his admirable lay sermons to the poor people of Edinburgh. He writes, "But you will perhaps say, 'The doctors should be able to put us to rights just as a watchmaker can clean and sort a watch; if you can't, what are you worth?' But the difference between a man and a watch is, that you must try to mend the man while he is going." If some of our good friends who are so solicitous about the progress of medicine will afford us the opportunity of leisurely taking apart and studying their living human machinery, I will vouch for discoveries which will silence future complaint, however much they may come under the ban of that worthy philanthropist, Mr. Bergh. Notwithstanding the great difficulties under which we labor in the investigation of the origin, nature, and treatment of disease, much has already been accomplished towards the solution of these the most intricate problems of science; and each new discovery in physiology, in pathology, in the laws of hygiene, and in the action of drugs upon the human system, brings us nearer to the time when therapeutics can lay an equal claim to certainty and exactness. When this day comes we shall no longer have reason to complain of the unreasonableness of public opinion. Quackery will then have nothing to feed upon; the hostilities of medical sects will have disappeared—the lion and the lamb will lie down together, but, better than all else, our patients will be cured. Meanwhile, let the public rest assured that our profession is not idle, and that the storms which now agitate the air are but the clearing of the skies for a brighter and purer day.

But while medical science has thus apparently fallen from its high estate, it can well afford to dispense with the superstitious reverence accorded to it by the ancients, now that it has gained a truer dignity through the advent of Christianity. Even so wise and good a man as Plato considered the practice of medicine as of very disputable advantage. The healing art, he thought, might properly concern itself with the cure of acute diseases and of surgical injuries, but the prolongation of life in sickly children or in adults with incurable chronic diseases he held to be detrimental to the best interests of the State. The sooner such persons were out of the world the better. Strange and cruel as such an opinion appears to us, it was the legitimate result of that disregard of human life which was universal among the ancients. According to Roman law, the lives of children and slaves were vested in the hands of parents and masters. The Spartans cast their sickly children into a cave in Mount Taygetus, in order that they might not grow up to be a burden to the State. Among the Romans, suicide was of so frequent occurrence, and was regarded as so honorable, that it acquired the name of "the Roman death." The introduction of Christianity not only revolutionized the current ideas in regard to a future life, but also gave a new meaning to the present one. The human body, which the Son of God glorified by condescending to bear its infirmities, by weeping at the tomb of Lazarus and raising him to life, by cleansing the leper long exiled from social intercourse, by giving back to the blind and deaf the blessed light of heaven and the harmony of sound, by his compassion for the poor woman who had spent her all upon physicians, and had nothing left with which to compensate him but gratitude and faith—the human body, thus dignified by the visible recognition of Deity itself, acquired a value hitherto unknown. This Christian idea of the sacredness of human life has been finely expressed by Novalis. "There is," he says, "but one temple in the world, and that is the body of man. Nothing is holier than this high form. Bending before men is a reverence done to this revelation in the flesh. We touch Heaven when we lay our hands upon a human body." No longer does human society consist merely of units unimportant except when taken in the aggregate. Each life, however lowly, however miserable from want or debased by sin, however impaired by disease and apparently lost for all useful purposes in this world, is still a life to be shielded from harm, to be relieved of its necessities and cured of its infirmities. Through a thousand by-ways and highways of public and private charity this divinely taught idea has sped upon its errand of mercy, mitigating the horrors of war, protecting the weak against the strong, building hospitals—those "palaces of the poor;" in a word, bringing, as far as possible, the fruits of modern science and invention to ameliorate the condition of the very classes which heathen philosophy affected to despise. In this great mission of benevolence, medical men have taken an active and a prominent part, and in accordance with that quality of mercy which is "twice bless'd, blessing him that gives and him that takes," our profession stands to-day divinely commissioned, divinely rewarded. I welcome you to its ranks with the assurance that, if you enter upon its study and practise its precepts after the example of the Master, you will find it to be none other than the house of God, and the very gate of Heaven.

Progress of Medical Science.

Increase of Length of the Long Bones.—Professor Langenbeck has recently read a paper before the Berlin Medical Society on the subject of "Morbid Increase of Length of the Long Bones." In this paper he has called attention to the fact that the long bones, when subject to irritation during the growing period of life, are apt to increase in length and thickness. It seems strange that in all the experiments on the subject of bone growth it never occurred to any one to compare the bones of the corresponding limbs. He has observed in various cases where the bone has suffered from some continued irritation—for instance, a joint inflammation, or a necrosis—that lengthening of the limb has followed. In one case, that of a little girl about nine years old, who had suffered for six years from chronic inflammation of the elbow-joint, he found, that though the bones of the forearm in both limbs were of similar length, the humerus on the diseased side measured one and a half centimetres more than that on the sound. A man, fifty-six years of age, who had had disease of the tibia since he was three years old, was admitted to the clinic with carcinoma recti, for which he was operated on, but died a few days after. On comparing the bones in this case, the diseased tibia was found two centimetres longer, measuring from the inner condyle to the point of the malleolus internus, and from the front borders of the internal joint surface of the knee along the crista to the front border of the ankle-joint, no less than four and a half centimetres. The tibia, though generally thickened and enlarged along its entire length, showed a diminution in amount of joint surface. The fibula was two centimetres longer. In this case it appears that the fibula had grown proportionately with the tibia, but this, as Professor Langenbeck says, has been previously observed by Paget and others. From his observations he draws three conclusions, viz:—

1. Morbid causes which produce irritation, and hyperæmia of the bony tissue, have as a result, as long

as the bone-growing period lasts, an increase in length, as well as in thickness of the bone.

2. The increase of length concerns principally the diseased bone, but it can also be observed in a healthy bone of the same extremity.

3. The bone lengthened through this increase of growth, retains its dimensions through life. An after-shortening through resorption does not take place, even although the original cause—viz., the bone disease—should long since have ceased to exist.

He then makes the proposition,—if it be not possible to artificially regulate the growth of bone, and through that to hinder or accelerate it. With this view he made an experiment on a dog about eight weeks old, by inserting ivory pegs into the femur and tibia of the left side. About four months later, the dog was killed, and on comparing the experimented bones with those on the opposite side, he found that "the femur showed no alteration in shape, but the joint surfaces of both hip and knee-joints were slightly smaller, the diaphysis slightly thickened and uneven..... The tibia, in the diaphysis of which two ivory pegs had been inserted, showed these changes somewhat more strongly marked. ..... On measurement, the femur and tibia both showed an increase of five millimetres in length, making in the whole limb an increase of ten millimetres." It appears from this that both bones presented elongation and thickening of the diaphysis; but the epiphysis had become somewhat smaller. Here, also, the fibula was lengthened to a coresponding extent with the tibia, though that could only have been caused by the extension exerted on it by the growing tibia: and, what is still more remarkable, it had obtained this without losing its connexion with the tibia, as took place in a case described by Parise.

Professor Langenbeck appears to think that though there might be some difficulty in persuading a patient, for instance, with a shortened limb through paralysis, to submit to five or six months' lying in bed, yet this observation may be of considerable importance to orthopædic surgery, inasmuch as it may be possible, by an application of extension apparatus, to so regulate the power that the bones themselves may actually undergo an extension.

Extirpation of the Uterus for Complete Prolapse.—Prof. Langenbeck, of Hanover, has recently performed the operation upon a woman forty-eight years of age, who has suffered from prolapse since the birth of her first child, eighteen years previous. She had borne nine children since then. The result was a good one. The patient removed the ligatures herself from the eighth to the tenth days. The operation was performed on the 15th of May; on the 29th she left her bed; and on the 31st she took her first walk in the open air.—*Memorabilien.*

Camphor as a Preventive of Oxidation.—Mr. George Wellborn (*Journal of Applied Chemistry*) finds that a small lump of camphor placed in a bottle of recently crystallized protosulphate of iron preserves it from oxidation, the salt remaining as a transparent solution after it had been kept three months. If the odor of camphor acquired by the salt is objectionable, it may be exposed a while before using, or it may be removed by alchoholic washing and dried.

Guyot's Concentrated Tar Solution.—Dr. Jeannel (*Journal de Pharmacie*), from an analysis of "Guyot's Concentrated Tar Solution," has deduced the following formula for its reproduction: bicarbonate of soda, 22 parts; tar (from wood), 25 parts; water, 1,000 parts. Macerate together for eight days, shaking the mixture several times each day.

This preparation, diluted with sixty or eighty times its volume of water, forms a clear tar-water for internal administration; in a less diluted condition it is also employed as a lotion.

Ileus treated by Injections of Seltzer-Water and Tobacco.—A young woman of 25, whose case is detailed in *L'Union Médicale*, was recently admitted to the Hotel Dieu, suffering from the usual symptoms of internal strangulation in a well marked and severe form.

Feb. 17.—Castor-oil combined with croton-oil was given without effect. By means of a seltzer-water apparatus attached to a long œsophageal tube, a gaseous injection was administered, after which the bowels were moved.

20th.—The symptoms being now very urgent, it was determined to give another injection of seltzer-water and then one of tobacco.

20th.—Two stools had been produced by the enema.

21st.—A second tobacco enema administered.

22nd.—A third was now given, the symptoms being much relieved. From this date she made a favorable recovery, and was discharged, cured, 13th March.

Another girl, aged twenty-five, was admitted, suffering acutely from symptoms of intestinal obstruction. Purgatives were tried without effect.

April 15.—A tobacco enema was administered.

16th.—The second tobacco enema was administered. The patient was not suffering so much, and in the evening got decidedly better.

18th.—Another tobacco enema was given.

19th.—The symptoms showed signs of severity. A tobacco enema was administered, and in the evening of the same day another tobacco enema was given.

20th.—The belly was more swollen, and pains more severe; tobacco *smoke* was now introduced into the intestines by the apparatus of Mathews. She got under its influence suddenly, and caused much anxiety by the consequent prostration, which was treated by coffee and electricity over the heart. From this date till June 2, the patient made a gradual recovery, the symptoms of obstruction having yielded directly after the establishment of the influence of tobacco.

Rectangular Stumps.—Mr. T. Pridgin Teale, M.A., F.R.C.S., read a paper before the Thirty-seventh Annual Session of the British Medical Association "On Rectangular Stumps," having previously exhibited at the Infirmary a number of patients operated upon after the method of his late father by various surgeons. Some of these patients ran races on their wooden legs, and all the stumps were of the highest degree of excellence. After stating that, since the publication by his father, eleven years ago, of the work on "Amputation by a Long and Short Rectangular Flap," the operation had held its ground unflinchingly in the Leeds Infirmary, Mr. Teale produced evidence to show that the two cardinal advantages claimed for the operation by his father—namely, an improved stump and diminished mortality after amputation—were realized in subsequent experience.

Improved Stumps.—In illustration of the first point, the series of patients with rectangular stumps of arm, forearm, thigh, and leg, made at various periods of time, and by various surgeons in the neighborhood, that had been exhibited, fulfilled the canon of excellence laid down by the late Mr. Teale, "that a good stump ought to have a cushion of soft tissues, free from great nerves and blood-vessels, over the end of the bones; that the cicatrix should be at a distance from, and non-adherent to, the sawn end of the bone; and that the stump should be capable of taking part of the

weight of the body on its extremity." In some instances, so much work had been borne by the stump that a bursa had become developed over the end of the bone.

Diminished Mortality.—On the second point, of diminished mortality, Mr. Pridgin Teale stated that he had collected statistics of all the amputations performed by Mr. S. Hey, Mr. Wheelhouse, and himself, in the Leeds Infirmary during the last five years, and that he found 57 rectangular amputations and 50 non-rectangular. Omitting amputations of the upper extremity, as not involving great risk to life, and all amputations for accident, as in them danger to life varies with the circumstances of the accident, there remained 39 rectangular amputations and 7 non-rectangular of the lower extremity for disease, with the following results: —Rectangular amputations of thigh, 21, with five deaths, or 1 death in 4⅕; non-rectangular ditto, 2, with 2 deaths, or 1 death in 1: rectangular amputations of leg 18, with 1 death, or 1 death in 18; non-rectangular ditto 5, with 1 death or 1 death in 5. If to these be added the statistics in the late Mr. Teale's work, we find a total of—rectangular amputations of thigh, 38, with 8 deaths, or 1 death in 4¾; ditto of leg, 45, with two deaths, or 1 death in 22½; amputations for disease of thigh, in London hospitals, 1 death in 4½; ditto in provincial hospitals, 1 death in 4; amputations for diseases of leg, in London hospitals, 1 death in 3¾; ditto, in provincial hospitals, 1 death in 4.

A New Sedative.—One of the last novelties produced in the Berlin medical world is a new sedative, but which its discoverer, Dr. Liebrich, thinks may also prove to be an anæsthetic. This is chloral, $C^2Cl^3OH + H^2O$, the peculiar nature of which is that when treated by an alkali it evolves chloroform. Dr. Liebrich proposes to avail himself of the alkalinity of the blood, and so, when administered subcutaneously or through the mouth, to produce the effect of chloroform. The experiments on rabbits were perfectly satisfactory, inasmuch as it produced a sound, death-like sleep for some eight or ten hours; and it appeared to have this advantage over chloroform and opium—viz., that the rabbits on awakening had none of the after-effects which usually attend the administration of those subjects, but partook of food immediately and freely. On account of the uncertainty as to the proper dose, the experiments on the human subject have not been as yet quite so satisfactory. In one case, however, Prof. Langen has proved to his satisfaction its wonderful sedative properties. A woman with fracture of the humerus, which threatened to become compound through her constant movements, she having strong delirium tremens when admitted, had taken, without its producing the slightest visible effect, seven grains of opium by the mouth, and three-quarters of a grain of morphia subcutaneously. Some time later, finding no result followed the measures, four grains of chloral were gradually given internally, and two grains subcutaneously. The patient gradually fell into a sound sleep, which lasted no less than fourteen hours, on awakening from which she complained of no sickness or headache, and partook of food readily. It is extremely probable that more will be heard of this chloral, but at present it is but sparingly experimented with.—*Lancet.*

Amputation at the Ankle-Joint.—Dr. G. H. B. Macleod read a paper on this subject before the British Medical Association. He gave an account of fifty cases of amputation at the ankle performed by him in public and private practice in the course of fifteen years, with only one death. He contrasted the merits of the different methods of removing the foot, and gave his reasons for preferring Syme's operation, dwelling on many minute details which it was requisite should be observed in order to insure success. Of the 50 cases referred to, 32 were examples of Syme's operation, 11 were by internal flap, 3 were Pirogoff's, 2 irregular, and 2 by Baudin's anterior flap. The ages ranged from five to sixty-nine years, but the majority were from ten to eighteen. Thirteen cases were traumatic, and the rest for disease. About one-third of the whole were hospital cases.

Painless Cutting in Surgery.—Dr. B. W. Richardson read a paper before the British Medical Association, on a new method of painless cutting in surgery. The author placed before the section a knife consisting of a revolving blade, and which divided with such rapidity that superficial incisions could be made with it without pain. The revolutions were about twenty-five per second, but the speed might be greatly increased. The knife in its action illustrated that an appreciable interval of time is necessary for fixing an impression on the mind, and for the development of consciousness. He hoped he should soon be able to give to the surgeon a small pocket instrument with which to open abscesses, and perform many minor surgical operations painlessly, without having recourse to either general or local anæsthesia.

Pregnancy with a Perfect Hymen.—A correspondent of the *Lancet*, Dr. H. Robinson, makes the following report: A few months since I was called to attend a married young lady, aged twenty, in her first confinement. Upon inquiry, I found she was only in her seventh month of pregnancy. I examined, and found the hymen unruptured, and with difficulty passed my finger through it; the os uteri was dilated about the size of a crown piece. I waited to see if nature would be able to rupture it without assistance; but owing to the thickness of the hymen, it could not, although the pains were quick and strong, and the head pressing hard against it. I therefore divided it with a pair of scissors. The head was born the next pain, and labor completed in a few minutes. The child lived two days, and the mother made a good recovery.

Persistent Priapism Successfully Treated with Bromide of Potassium.—Dr. B. S. Hargis relates the case of a mulatto (*N. O. Journal of Medicine*), aged 28 years, married, and who was addicted to excessive venereal indulgence, and who was seized immediately after connection with an intensely painful erection. He had applied cold water assiduously; then had recourse to hot baths and fomentations; took purgatives, and afterwards opium. His countenance was haggard, and expressive of great anxiety. He suffered intense pain in the virile member. He was ordered of bromide of potassium grs. xv. every two hours. In six hours the pain was relieved and the organ flaccid, and entire relief was experienced. In about two months he experienced another attack of the priapism, and was treated as before with the same result.

Quinine, Opium, and Chloroform.—J. Campbell Shorb, M.D., Prof. of Physiology in the Toland Med. College, San Francisco, Cal., in his introductory address to the students on "Benevolence in Medicine," concludes with these words: "The student of medicine, who, in the consideration of quinine, opium, and chloroform, cannot discover abundant reason for gratitude to the good God above us, nor reason for devotion to medicine, had better leave these halls; or staying, pray that the obscurity of his soul may depart, and that his heart be aroused to a sense of the majesty and beneficence of the noblest of all human sciences."—*Cal. Med. Gazette.*

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NAVAL DISCIPLINE.

THE Navy Department has lately promulgated in general orders the result of a general court-martial convened at the Washington Navy Yard, for the trial of Passed Assistant Surgeon, Charles L. Green. The finding of the said court is not only of great interest to the medical staff of the service, but to the profession at large. It carries with it a selfish and partial exemplification of a principle which those who may have a desire to enter the navy as surgeons should gravely contemplate. The following were the charges:—

"*First*—Treating with contempt his superior officer while in the execution of his office, in dissenting, while on board the United States steamer Nipsic at Aspinwall, from an order to take a seaman off the sick list.

"*Second*—Disobeying a lawful order of his superior officer in thus refusing obedience.

"*Third*—Conduct unbecoming an officer, the specifications being that he was intoxicated and behaved in a manner unbecoming an officer in the town of Aspinwall."

After an *impartial* examination into the facts of the case by an *impartial* jury, the surgeon was found guilty of the first two. The doctor had conscientiously refused to take a seaman off the sick list, because, in his opinion as a medical man, the said seaman was physically incapable of performing his duties. He dared do this despite the order of a line officer who was his superior in rank, and who, the charge specifies, was at the time "in the execution of his office." This order is also particularized as a lawful one, hence the contempt of authority which entitled the unfortunate surgeon to a trial.

The result of the trial clearly implies a divine right on the part of a line officer not only to be superior in rank to the surgeon of his ship, but also his superior in medical knowledge. The profession have been prepared to hear of anything in the shape of indignity being heaped upon the friendless ship-surgeon, but we imagine that this new interpretation of discipline will be rather startling. A medical gentleman has not an enviable lot in any community; it is generally summed up in hard work and poor pay, but he has reason to believe that his knowledge of his profession always associates with it a respect for his medical opinions. By the common consent of civilized communities his judgment in his special department is at a premium, and none of the laity, so-called, deem it safe from their standpoint of knowledge to question its integrity. Everywhere, save in the naval service of the United States, a medical man is supposed to know the most of medical science, and to be the best judge as to physical ability or disability.

The names of the gentlemen composing the court-martial do not appear, but it is quite evident, from the decision arrived at, that the majority at least were made up from members of the line. Indeed this is the only way of explaining the verdict. Nothing but that bitterness of hate which the line bears towards the staff could have prompted a decision so contrary to the ordinary dictates of common-sense. But after all, what is a naval surgeon? His rights to be even a gentleman are only conceded to him out of gracious courtesy, and by and by he will not dare to hold a medical opinion, except by express command of his superior officer.

After having been declared guilty of the first two charges and specifications, the court sentenced the surgeon to be suspended from rank, on furlough pay, for the term of two years, and to be publicly reprimanded by the Honorable Secretary of the Navy, the order reprimanding him to be read to the officers and men of each naval station and vessel in commission.

On examination of the evidence, and after considerable deliberation, Secretary Robeson approved the finding of the court. With an attempt to show a charity towards the poor offender, the Honorable Secretary let him off with a simple reprimand in general orders, but the excuse for doing even this is perhaps more remarkable than the actual sentence itself. "Thus learnedly and eloquently spoke the judge: "—

"The sentence of the court is not unsuited to the offence of which the accused was found guilty. Disobedience of orders is under any circumstance a serious offence, and when committed deliberately by an intelligent officer, under a claim of right, must tend greatly to the subversion of all discipline. I am inclined to think, however, from the evidence, that the disobedience complained of in this case was the result of a mistake of judgment in regard to professional rights and duties, rather than of a deliberate intention of wrong. Mistakes of this kind rarely require a severe, and never a disgraceful punishment, and the previous good character and conduct of Mr. Green entitle him to the benefit of whatever doubt there may be on this subject, and to the consideration of the reviewing authority. The sentence of suspension from rank on furlough pay for the term of two years is, therefore, remitted, and this order is published as the reprimand provided for in the sentence, and it will be read accordingly."

A more emphatic and explicit endorsement of the spirit of any sentence, just or unjust, could not have been imagined. Coming as it does from the head of

the Department, there is virtually no appeal. Obedience of naval orders implies to the naval surgeon, who is graciously named an "intelligent officer," the right of possessing no judgment whatever in regard to professional rights or professional opinion when the requisite order comes to him from his superior. If a man is hereafter ordered to be taken from the sick list, no matter what his state may be, he must become well at once, and fit for duty, otherwise there will be "a subversion of all discipline;" and if the surgeon, as the lawful custodian of the health of the ship, has reason to believe that the patient is physically incapable, and for the sake of the sick one refuses to say that he is well enough to attend to his duties, the offence against discipline is the more flagrant because the surgeon is called an "intelligent officer."

Our readers have had, we trust, a tolerable idea of the position of a naval surgeon on shipboard. He has relatively been a nobody; but now he is a positive nonentity. He has been merely a creature of the coldest sort of courtesy; but now he has no right as a medical man to have even a medical opinion independent of his commander.

There have been forcible arguments to prove the necessity for absolute staff rank in the navy; but the definition of professional rights by this naval court-martial makes a claim stronger than all the rest. The framers of the Naval Staff Rank Bill, with all their knowledge of the rights which might be claimed by the line, could not have dreamed of the necessity of defining purely professional prerogatives. Surgeon Green, by the noble stand he has taken for his profession, has demonstrated to them the necessity for such an additional provision.

We have taken occasion to remark on this matter of naval discipline for the purpose not only of heartily endorsing the conduct of Passed Assistant Surgeon Green, but of keeping the profession at large informed as to the indignities suffered by their brethren in that branch of the service. It would seem that the good offices of our profession are not very much needed in the navy. But we must not mourn over this. In every other sphere the properly educated and "intelligent" medical man can be respected, nay, honored; can command an influence in proportion to his professional acquirements, and, if hard pinched, can, by dint of industry and frugality, gain a livelihood. It may, after all, in time be proved that the profession can do better without the help of the navy than with it. It certainly seems so at present. In the army, however, the treatment of the medical officer is so different that one would hardly believe the two branches of the service to belong to the same country. It is this latter circumstance, we imagine, which can explain why the army has so few vacancies in the medical corps, and the navy so many. This disparity must inevitably continue to be greater as the antagonism of the line towards the staff becomes more generally understood and appreciated.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, SEPT. 8TH, 1869.

DR. LEWIS A. SAYRE, President, in the Chair.

THE EFFECTS OF LONG STANDING RHEUMATISM.

DR. SAYRE lastly exhibited an enlarged knee-joint taken from an alms-house patient fifty-eight years of age, who had suffered from the effects of inflammatory rheumatism contracted fifteen years before. The joint began gradually to enlarge, giving him but little pain, and only slightly inconvenienced his progression. About a month ago he was seized with dysentery and died. Dr. Lanterman kindly procured the specimen.

On examining the joint, all the ligamentous tissue around the joint, save that belonging to the patella, was seemingly converted into bone. The lower extremity of the femur presented several spots of erosion of the cartilage, was much enlarged, and almost eburnated. The patella was likewise much increased in size, and above it and on either side were two rounded masses of bony tissue resembling the natural patellæ, and equalling them in size. There were several smaller masses attached to the capsule, which seemed to be bone also.

After some discussion as to the probable nature of these latter deposits, there having been no microscopic examination made of them, the specimen was, on motion, referred to the appropriate committee.

The Society then went into executive session.

STATED MEETING, SEPT. 22D, 1869.

DR. LEWIS A. SAYRE, President, in the Chair.

DR. ROGERS, on behalf of the Committee on Microscopy, reported that the deposits around the joint in Dr. Sayre's specimen of rheumatic arthritis were found to be truly bone. A section of the tissue was exhibited under the microscope.

STAB WOUND OF ILEUM—PERITONITIS FROM SUTURE IN THE GUT.

DR. FINNELL exhibited a portion of the ileum that had been the seat of a stab wound. It was removed from the body of a man aged thirty. The injury had been inflicted with a butcher-knife, the blade of which entered the abdomen a little below and to the right of the umbilicus. After wounding the portion of intestine referred to, the weapon must have been turned flatwise, as it had afterwards passed upwards between the abdominal muscles a distance of seven inches. The patient had been seen by a medical man very soon after the fracas, the wound was brought together with sutures, and the protruding portion was carefully returned. Death took place, however, soon after, as the result of peritonitis.

At the autopsy, which was made at the instance of the coroner, the inflammation was found to have extended from the vicinity of the wound as a focus. No abscesses were discovered in the vicinity, neither was any hemorrhage noticed in the peritoneal cavity. The wound of the gut had to all intents and purposes completely closed.

DR. SAYRE thought that the inflammation might have been excited by a portion of the suture, nearly three inches in length, which, instead of being cut off close, had been left to dangle in the peritoneal cavity.

THE PLACENTAL DECIDUA.

DR. FINNELL exhibited as a second specimen the uterus of a victim to criminal abortion. The patient was at the time four months advanced. Death took place on the twelfth day after the operation, as the result of peritonitis. The organ was presented for the purpose of calling attention to a flat thickened and spongy patch, which corresponded in position to the original site of the placenta. Dr. F. had been in the habit of regarding this as a portion of the surface of afterbirth that had not been expelled. He had met with it under similar circumstances before.

DR. ROGERS was satisfied, from previous examinations made of similar specimens, that the thickened portion was in reality nothing more than the placental decidua —that portion of the general decidua situated between the placenta proper and the uterus.

FATTY HEART.—RUPTURE OF VENTRICLE FROM FRIGHT.

DR. FINNELL presented a third specimen, which consisted of a fatty heart having a point of rupture in the thickest portion of the left ventricle. It was removed from the body of a man twenty-eight years of age, who was driving a grocer's wagon, when the horse became frightened and ran away. The patient was found in a dying condition in the vehicle after the animal had been caught. It did not appear that he had suffered any external injury, and the supposition was, that the bursting of the heart was due more to fright than anything else. The rupture was over half an inch in length, and the ventricle at the point was half an inch thick.

DR. SAYRE noticed that in the immediate vicinity of the rupture there was a considerable collection of superfluous fat. This, in all probability, accounted for the rent at the place indicated.

MEDULLARY CANCER OF LIVER.

A fourth specimen by Dr. Finnell was a splendid one of encephaloid disease of the liver, presented on behalf of Dr. C. C. Lee. The following account of the case was given:—

A Prussian, aged fifty, was admitted to St. Vincent's Hospital, Aug. 27; died Sept. 20. Ten months before his death he began to suffer from abdominal pains, loss of appetite, emaciation, and abdominal swelling. The latter was thought due to dropsy, and was so treated by two physicians to whom he applied. His mother, sister, and aunt had died of various forms of malignant disease; and, on admission to hospital, medullary cancer of liver was at once diagnosed. All the usual symptoms, including absence of jaundice, were presented. Death, from rather sudden prostration and exhaustion, occurred Sept. 20. Autopsy showed all abdominal organs healthy except liver and omentum, the fatty tissue of latter being hardened and hypertrophied. No secondary cancerous deposits were found. Liver weighed 16 lbs.

INFRA-ORBITAL SARCOMA.

DR. SAYRE exhibited a tumor of the orbit with the following history:—

Ira Hazard, colored, aged 35, of healthy parents, and of perfectly healthy constitution, began to complain of a feeling of fulness in his left eye about twelve years ago, when twenty-three years of age, and also discovered that his eye was projecting from the socket. No cause could be assigned for this protrusion, as he had received no blow or injury; he had no pain whatever, and was in perfect health. The eye continued to protrude, and, in two years, projected beyond the socket, and hung downward on the cheek; the sight was still good, and he suffered no pain.

At this time Dr. Corlies, of Greenwich, Montgomery Co., N. Y., removed the eye on account of its deformity; but the tumor, which was behind it, and caused it to protrude, being so hard, and apparently firmly attached to the bones of the orbit, was not disturbed.

The tumor had continued to grow slowly ever since the operation until I saw it, when it protruded nearly two inches beyond the outer angle of the eye, projecting downward on the cheek, and above the superciliary ridge and upper edge of the orbit, to which it seemed to be internally attached. It was very hard to the touch, almost like an exostosis, and slightly nodular or irregular. The lids were not attached to it, but were so distended that they could not close over it, and the eversion of the lower lid gave him some annoyance from the granular condition of its exposed mucous membrane.

Drs. Hamilton, Mott, Noyes, Knapp, Whitehead, Yale, and a number of other medical gentlemen, saw the case with me, but were unable to arrive at a satisfactory solution of its nature or origin. From the fact that the man was in apparently perfect health, with no enlargement of any of the glands; from the slow growth of the tumor, its apparent hardness, and the absence of all pain, I determined to make the attempt to remove it. The majority of the gentlemen above mentioned, agreeing with me in this opinion, I proceeded to perform the operation on the 16th inst., before the medical class at my clinic, at the Charity Hospital on Blackwell's Island.

The patient being perfectly anæsthetized, I made an incision from the outer angle of the lids, about three inches long, in a direct line with the commissure, and dividing the internal angle of the lids, carried the incision close up to the nose. The lids were then carefully dissected off from the tumor, and by some little stretching were folded back, and, as it were, buttoned over the tumor. This gave us a much better opportunity to examine its nature and attachments than we had had. It was found to fill the orbital cavity completely, and, projecting over the upper edge of the orbit, was spread out on the superciliary ridge like the crown of a mushroom on its stalk, and so closely pressed against the bone as to appear at first sight to be attached to it. But with my "Oyster Knife," periosteal elevator, I was enabled to separate them without division of any tissues, and therefore gradually worked it off by carefully carrying the elevator around it with a prying sort of motion; but before I could get down into the orbit the projecting part of the tumor had to be broken off. The fracture was not like that of bone, but more like the breaking of a very hard apple or potato. The mass broken off was about the size of a small fist, and exposed the upper edge of the orbit, changed in shape by pressure, irregular and rough, but not apparently otherwise involved in the disease.

On the outer and upper angle of the orbit, the bone was broken through into the temporal fossa about at the position of the lachrymal gland. After a careful examination, finding that it was a purely infra-orbital tumor, the balance of it was carefully worked around with the elevator, and gradually pryed out, from the very bottom of the socket. The rough edges of the orbit were removed with the rongeur, and the entire socket carefully scraped of all debris; and by the advice of Dr. Noyes, washed with a saturated solution of chloride of zinc.

The orbital opening measured two inches in each diameter. The orbit was lightly filled with carefully picked oakum wet in carbolic acid water, and the lids stitched at each angle with the ordinary silk suture,

which was also used to close the rest of the incision; an oiled rag over the eye, covered with a small pledget wet in cold water, and a light roller bandage, completed the dressing. No arteries were tied, and but little blood lost.

Drs. Noyes and Knapp lent me most valuable assistance in the operation, which is most gratefully acknowledged.

The stitches were all removed on Friday, forty-eight hours after the operation, and the entire incision was healed by first intention.

Pulse 78; no pain or appearance of inflammation about the parts. In conclusion, he stated that Dr. Knapp had been able to make only a very hasty examination of the specimen before the meeting, and had so far come to the conclusion that it was sarcomatous. That gentleman intended, however, to make a more complete inspection, and if circumstances warranted a change of opinion, to report accordingly.

AN AMPUTATED ARM.

Dr. Sayre next presented a specimen of amputated arm, and read the following letter which accompanied it.

"Hudson, St. Croix Co., Wis., Aug. 26th, 1869.

"Sir—I have this day forwarded to you by express a box containing an arm, amputated at the shoulder-joint, January 18, 1869. The patient, a female, aged 32 years, widow; had one child seven years old; rather spare in flesh; had always enjoyed uninterrupted good health until Nov. 27, 1868. On that date she was attacked with acute continuous burning pain, about an inch and a half or two inches below the elbow, confined to the anterior of the radius. In a few days a well-defined hard tumor could be felt, apparently attached to the radius. The tumor continued to increase rapidly without any abatement of pain until January 10, 1869. When I saw her for the first time, I found her much emaciated, confined to bed constantly, with the peculiar appearance of the skin usually observed in scirrhous subjects, taking large and frequent doses of morphine to procure a little sleep. No pulsation in either the radial or ulnar arteries; the subcutaneous veins over the tumor enlarged and radiating from over the centre of the tumor in every direction; the arm and forearm swollen, and had a peculiar elasticity. Supposing it might be a malignant disease, I advised amputation at the shoulder-joint, which was consented to. On the 18th of January I proceeded to operate. She passed a more comfortable night the first night after the operation than she had done for six weeks previous, and made a rapid recovery, and is now engaged in teaching school.

"At the request of the Saint Croix Valley Medical Association of Wisconsin, I send the arm to you for microscopical or other examination as to its character and the necessity of amputation. You will find, in addition to the tumor, which was attached to the radius and ulna, several small patches along or near the linea aspera of the humerus, where small tubercles of a similar appearance to the large tumor had been detached with the periosteum, which was done carelessly in my absence. Please make the necessary examination, and state your views on the subject at your earliest convenience, and send me the amount of your charges for payment.

"I am, sir, respectfully, your obedient servant,

"Otis Hoyt, M.D.,

"*Pres. St. Croix Med. Association.*"

Dr. Newman remarked that the bones of the arm were apparently healthy, except a portion of the radius that had been deprived of its periosteum. He could not understand why the arm had been amputated at all, and why some attempt at enucleation had not been made.

A motion was made to refer the specimen to the Committee on Microscopy. The case involving also a surgical question, the President, at the request of the Society, appointed Drs. Rogers, Post, and Hamilton, as a committee to act in conjunction with the former.

EFFECTS OF POISONING BY ATROPIA.

Dr. Lewis Smith exhibited a portion of skin removed from an infant that had died early on the Monday morning previous from the effects of atropine. An autopsy was made by the coroner twenty-five hours after death, and a second one by the staff proper three hours subsequently.

There had been in the ward of the hospital a solution of nitrate of silver and atropia in water. The proportion of the latter was one grain to the ounce. This had been used for some time, so that the exact quantity remaining at the time it was drunk by the little victim is not known. As fully an ounce was found in the vial after the infant had taken it, it was presumed that something less than half a grain of the alkaloid had been swallowed.

The poison was taken about six o'clock on Sunday evening, and the physician, Dr. Dunster, and his assistant, were called to the child within half an hour afterwards. They then found that there was a considerable efflorescence of the whole surface save around the mouth and alæ nasi, which were pallid. This condition remained unchanged up to the time of death, and, although much faded, was distinctly visible on the section of integument exhibited. The pupils were very much dilated, and continued so until an hour before death, when Dr. Dunster observed them suddenly contract, in which condition they remained. In connection with this latter circumstance, it must be stated that the patient had been taking opium. The whole quantity of this drug that was administered was not more than one grain. The pulse from the first was considerably accelerated, and gradually increased up to the time of death from 120 to 180. The respiration at the same time was accelerated, catching, and very irregular, a point of some significance in connection with the post-mortem appearances in the chest to be hereafter noted. One of the physicians counted the respirations a little before death, and they amounted to *one hundred* per minute! About three hours before death convulsions took place. These were clinic in character, and continued until death. There was also present temporary opisthotonos.

Autopsy.—At the autopsy the brain was found in a normal state. Dr. Smith was not present at the opening of the chest, but the physicians stated to him that each pleural cavity contained three or four ounces of serum; that the lungs were partially collapsed, at least not fully inflated, and were in a state of congestion—evidently œdema pulmonum. This was of interest in connection with the embarrassed respiration, which condition continuing, doubtless gave rise to œdema and hydro-thorax. The contents of the head had not been seen by Dr. Smith, and he had forgotten to inquire in relation to them. The stomach was healthy, but post-mortem digestion had taken place in the vicinity of its cardiac orifice.

Dr. Janeway thought that the changes found in the chest at the autopsy were due to post-mortem influences. Such a condition of things was, according to his experience, not very uncommon as the result of decomposition, and was proportionately more liable to occur according to increased heat of weather and lapse of time after death.

Dr. Smith remarked that he had not noticed that such lesions of the chest contents were put down among those belonging to atropine poisoning.

Dr. Finnell contended that fluid in the chest was always an ante-mortem affair. He had examined a great many chests of patients who had been dead for a number of days, but had not found œdema of the lung or effusion in the chest as the result of decomposition. Such a thing might occur after the tenth day, but if it existed before that he would regard it as of an ante-mortem origin.

Dr. Janeway remarked that there was no reason why this œdema and moderate effusion should not take place with considerable rapidity in persons who had died suddenly while previously in good health. In fact, it had been generally conceded by the authorities that œdema of the lung could not be relied upon at post-mortems as indicating any disease during life unless the diagnosis had been made beforehand.

IS ŒDEMA OF THE LUNG AN ANTE- OR POST-MORTEM CHANGE?

Dr. Finnell.—I have always been in the habit of looking upon œdema of the lungs as an ante-mortem change, and have always directed my attention to the kidneys as the cause. As to the frequency of fluid in the chest as a post-mortem change, I must confess it is new to me. I have examined a great many bodies of persons who have died suddenly while in previous good health, and have examined some two or three days afterwards, but have never found a drop of fluid in either pleural cavity that could not be accounted for by some other than autopsical changes.

DO POISON-CASES FROM OPIUM DIE WITH ACCELERATION OF PULSE AND OF RESPIRATION?

Dr. Loomis asked if the patient did not die in coma, after the pupils were found to be contracted. The question with him was, whether the child died from the effects of the atropine or of the opium.

Dr. Smith stated that it had clonic convulsions during its last hours, and that the pulse and respiration were accelerated up to the time of death.

Dr. Loomis.—I regard a grain of opium a very full dose for a child one year old.

Dr. Smith.—The dose of opium as an antidote is usually much larger than the ordinary one. As to the poisoning by opium, it would hardly be possible to occur with a pulse and respiration so much accelerated.

Dr. Loomis remarked that in opium poisoning the pulse not unfrequently ran up to a high figure towards the very last, as did also the respiration.

IDIOPATHIC PYÆMIA.

Dr. Lewis Smith next presented a lung taken from an infant that had died at the age of one month. Although it had become very much emaciated, there were no positive symptoms upon which to base a diagnosis. On making the autopsy, the right pleural cavity was found to contain nearly an ounce of pus. The lower lobe of the lung was adherent to the chest above and to the liver below. The patient had no symptoms whatever of lung trouble during life. It was evidently idiopathic in origin. He remarked, in conclusion, that this was not a very uncommon disease among feeble infants; but on account of the small deposit that took place, it was next to impossible to diagnosticate it beforehand. In almost all instances the respiratory murmur was perfectly conducted through the effusion.

There being no other specimens for presentation, the Society went into executive session.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

(Abstract continued from last number.)

Stated Reunions.

March 26, 1869.—In the absence of Dr. Elsberg, announced for the evening,

Dr. Whitehead related a case of *strangulated ventral hernia* in a woman, upon which he had operated three days before. [Specimen presented at Pathological Society, March 24. See Med. Record, May 1, 1869, vol. iv., p. 113.] At the time of operation, Tuesday noon, the strangulation had existed at least thirty-six hours, and perhaps longer. The tumor, about half the size of the fist, was situated just to the left of the umbilicus, at the junction of the umbilical and hypogastric regions. Taxis failing, an incision was made, which it was found necessary to enlarge several times, to the extent, finally, of nearly five inches. During the examination liquid escaped from the sac. At one time a large portion of the small intestine protruded itself through the incision, but was immediately returned. It was found that no part of the intestine was strangulated; but a large piece of omentum was constricted by stout fibrous bands, one of them the thickness of the finger, so that reduction by taxis would clearly have been impossible. These bands it was necessary to divide with strong scissors; and as each one was cut, a marked depression of the vital powers was immediately observed. After dividing these bands, several little bodies, thought to be pins, were discovered in the region of the cæcum, lying parallel with the abdominal wall. They were finally detached with some difficulty by the aid of forceps, and proved to be fish-bones. This led the doctor to hope that the peritoneum might have become so accustomed to foreign bodies that less harm would result from the operation. Foreign bodies had often been found in hernial sacs, where the constriction seemed to be the result of inflammation produced by them. Pins had been known to perforate the cæcum; in one case the sharp claw of a bird had done the same; and in another (of ventral hernia) a wheat beard was found protruding through the intestine into the peritoneal cavity. Other circumstances contributed to render the operation tedious, necessitating exposure of the peritoneum for at least three-quarters of an hour. The bladder had to be evacuated, and a vaginal examination made, to ascertain whether certain mesenteric glands, which closely simulated the fundus uteri, were really that or not. As much expedition was made as possible, and the patient was strongly stimulated immediately after the operation.

Up to Thursday midnight the case had progressed quite favorably, the pulse never rising above 116 or 120 in the minute; but this (Friday) morning the pulse was more frequent, and to-night the patient was probably dying or dead. All yesterday she had vomited, and had since been nourished only by enemata. It was a question whether the unfavorable change must not be attributed in some measure to narcotism. After the operation, it was deemed necessary to paralyze, as much as possible, the action of the bowels—"to put the bowels in splints"—and for this purpose McMunn's Elixir was exhibited. It kept up a moderate degree of narcotism, but failed to check the vomiting which occurred; though this yielded partially to ice and aromatic ammonia. An injection of about sixty drops of McMunn, with beef-tea and brandy, was then given, the patient having vomited nearly all the opiates she had previously taken. After this signs of progressive narcotism were observed. Now, what amount of influ-

ence should be attributed to the depressing effects of the opium, in conjunction with the shock of the operation? Possibly, in the effort to paralyze the bowels, the centres of organic life had been more or less paralyzed. The doctor could recall no successful case of operation for extensive ventral hernia.

Dr. Neftel.—It was noticed by ancient observers that a blow upon the abdomen is very dangerous, and may be fatal. Now, after an operation upon the peritoneum, it is often the case that the patient dies, and the post-mortem shows no sign of peritonitis. Death is preceded by nausea, vomiting, and general prostration. This can be ascribed to the inhibitory action of the vagus, the irritation of which produces paralysis of the heart. Goltz has found that by striking upon the abdomen of a frog paralysis of the heart is produced, and this he attributes to reflex action of the abdominal nerves upon the vagus. The cause of death after operations on the peritoneum is really often this reflex action, producing cessation of the heart's motions. The pulse known as the "abdominal pulse" is small and filiform. Goltz found also that the paralysis of the heart was obviated if, at the same time, the cutaneous nerves of the extremities were irritated. I think, therefore, that it would be well after such operations to irritate the skin with a faradaic current.

The Secretary, Dr. Burrall, acknowledged the receipt of a number of photographic and lithographic portraits, presented by Dr. Noeggerath.

April 2.—Dr. Jacobi discussed, at some length, the subject of *Chronic Pneumonia in Infants*, bringing out many points of theoretical interest and practical importance. We shall present an abstract of our full report in a future number.

April 9.—Dr. Howard gave an account of the various methods of *Artificial Respiration*, demonstrating them upon the living subject, and explaining the advantages of his own method. Our readers have already seen a description of the doctor's method in The Medical Record for December 15, 1868, vol. iii., page 467.

Dr. Sell said that he had hit upon a method similar to Dr. Howard's, while keeping up artificial respiration in a case of gelseminum poisoning.

Dr. Neftel.—The method of Dr. Howard is certainly very valuable, and far better than most other mechanical methods. It resembles somewhat the very simple one we generally use in sustaining artificial respiration in animals, where we often have to keep it up for several hours. This latter consists in rhythmical compressions and relaxations of the abdomen with both hands. I have used this method with complete success in asphyxia after chloroform, in the human subject, and for its simplicity and efficacy prefer it even to Dr. Howard's.

Still there are cases of asphyxia where there is complete cessation both of respiration and of the action of the heart; and in such cases faradization of the phrenic nerves is decidedly superior to all other means of resuscitation. This was suggested by Hufeland, in 1783; but it was not until 1855 that Duchenne, of Boulogne, showed its great value, subjecting animals to chloroform till all action of lungs and heart had ceased, and then reviving them by this means. It was only in 1856, however, that it was applied to the human subject by Ziemssen. A woman was brought in completely asphyxiated by carbonic oxide; there was no pulsation. Ziemssen applied the faradaic current to both phrenic nerves, and saved the patient. [The speaker here related two other cases.] So there is now no doubt that the method of faradization is superior to every other, except Dr. Howard's, which has not yet been tested.

The method is very simple. We have only to apply both poles of a strong current to the phrenic nerves, just at the outer margin of the sterno-mastoid muscles, a little above the omo-hyoid. Immediately the diaphragm contracts, and the air rushes with great rapidity into the lungs. Interrupt the current, and expiration follows. By continuing this process rhythmically we imitate natural respiration. I have tried this upon myself and several other gentlemen. The effect is immediate, and very astonishing; the sensation rather unpleasant, but not particularly painful.

It sometimes happens that the patient begins to breathe; respiration continues for twenty-four hours or more; and yet death ensues. This is especially apt to be the case when the asphyxia has been caused by carbonic oxide, which enters into very firm combination with the hæmaglobin of the blood, so that it cannot absorb oxygen. [The spectroscopic appearances were here given.] In such cases it is necessary, besides making artificial respiration, to resort to transfusion of blood.

Dr. Knapp.—I think it is possible to keep up the action of the heart by the method just now so ably explained by Dr. Howard. I may relate an example from my own practice. It was in 1859 that I was about to make an operation for squint, with a young physician of this country, Dr. Pope, now Professor in New Orleans. The patient, a lady of thirty-five years, lay in bed. Before administering chloroform, I examined her eyes again, when she died suddenly. There was a very long, deep inspiration, and that was her last. No chloroform had been given. We at once made artificial respiration, by pressing the chest down and letting it expand again by the elasticity of the ribs. After half an hour, the lips were still red, and another physician, whom we called in, thought we had only a case of fainting. We kept up the process, on the whole, for two hours and a half, the heart continuing to beat regularly with a natural pulsation, and the lips remaining red, just like life. But as soon as we ceased compressing the chest, the lips were immediately pale; and, trying the breath with a feather, there was not the slightest respiratory current. At last we got tired, and thought it was all over; and so it was. We made a post-mortem, and found that a very abundant apoplexy had occurred, in the convexity of the brain, just before death.

I am not competent to judge the claims to originality of Dr. Howard's method. He says it has decided advantages over Marshall Hall's. I know that in Germany, until about 1862–3, we commonly employed the method I have just now indicated; and afterwards, that of Marshall Hall became universal. I have myself tried the latter some six times, and always with a good result. In one instance of asphyxia from common illuminating gas, I tried it for about twenty minutes, and respiration returned. [The speaker remarked briefly upon the mechanism of respiration, referring to the fact that for forced inspiration we naturally throw the head and the body backwards, while for expiration we bend them forwards. The position in which Dr. Howard had placed his patient would appear to interfere with this. He said that it did not seem to him quite conclusive of the superiority of Dr. Howard's method, that the air was heard to rush violently into the chest. By Marshall Hall's, the inspiration was more gradual, but it might be larger in amount, though less noticeable. The simplicity of Dr. Howard's method,

however, might make it more valuable for general use.]

Dr. Peaslee.—When I became acquainted, a short time since, with this method of Dr. Howard's—for, so far as I know, I think he is entitled to the great credit of having first proposed it—it occurred to me that it is the only one that will bear physiological analysis. In natural inspiration we have a double movement, that of the ribs upwards and forwards, and that of the diaphragm downwards; so that, at the same time, both the antero-posterior and the vertical dimensions of the chest are increased. During expiration, the ribs fall passively back, and the diaphragm arches upwards, restoring both dimensions to their previous condition. The increase of the antero-posterior diameter is effected by the intercostals and the outside muscles of the chest, that of the vertical by the diaphragm alone. Marshall Hall's method addresses itself almost exclusively to the increase of the antero-posterior dimensions; and the same is true of Sylvester's, Pacini's, and the others. Dr. Howard does this, and imitates the motions of the diaphragm besides. Thus, taking a drowned person, the first thing required is to produce expiration. The ribs have already fallen back to their passive position; so he effects a forced expiration, by pressing upon the lower portion of the thorax—the cartilages, floating ribs, etc.—while at the same time the hollow of the hand, pressing upon the abdomen, carries up the abdominal viscera against the diaphragm, and forces this up so as to diminish the vertical dimensions. Now, how do we get inspiration? This is produced by the resiliency of the bony structure of the thorax, and by the elasticity of the diaphragm, which is also brought into play, restoring it to its original position, when the pressure of the hands upon the abdominal viscera is removed. If, therefore, we begin upon a person who has already made an expiration, and wants a forced one as the first thing, I cannot conceive any other physiological process of effecting it. With regard to the objection of Dr. Knapp, it is of importance as applied to a person still conscious. We draw up the head, in this manner, for a forced inspiration, in order to get a fixed point of action for the intercostals. But, where the patient is totally unconscious, you cannot rely at all upon muscular effort, but are obliged to depend solely upon the resiliency of the structures. In elevating the chest, however, Dr. Howard, at the same time, actually brings the head into the relative position suggested by Dr. Knapp.

Dr. H. G. Davis.—This whole subject is entirely mechanical, and demonstrable upon mechanical principles. I have been surprised to hear so little said in reference to Sylvester's plan. In the experiments conducted by direction of the British Medical Association, it was tested by instruments in the most philosophical manner possible. They were enabled to introduce fifty cubic inches of air into the lungs by Sylvester's plan, while by Hall's the number was, I think, fifteen; so we see that there is a decided difference in the results of these methods. The dilatation of the chest in inspiration is dependent on the form of the ribs. I illustrate it thus by my arms. It was said that this motion of the ribs did not change the position of the diaphragm; but it seems to me clear that it must bring it into a nearly straight line. How shall we make this change in the position of the ribs? A person with asthma gets into some posture in which he can throw the weight of the body upon the shoulders. I have myself suffered from asthma, and find the most comfortable position to be this [body supported by arms, hands resting on table]. You can thus elevate the ribs upon the dead subject, and so, of course, upon a person insensible. I think the perfectly fair experiments alluded to prove the great value of Sylvester's method. I have employed it also for enlarging the capacity of the lungs in chronic pulmonary disease.

Dr. Wm. B. Lewis exhibited a microscope of his own make, by which he had cheaply utilized some valuable lenses.

April 16.—Dr. A. C. Post read a paper on *The Treatment of Deformities arising from the Contraction of the Cicatrices of Burns* (Medical Record, Aug. 2 and 16, 1869, vol. iv., pp. 247, 268), illustrating the subject by water-color and blackboard drawings, and presenting a very interesting case in person.

Dr. Hamilton.—I wish to make one or two criticisms upon Dr. Post's operations of blepharoplasty. In the first place, a pretty large experience in blepharoplastic operations has satisfied me that the best place to select for the flap is the integument of the sides of the forehead, both because it is less likely to slough, and because, as no expression depends upon the skin of the forehead, there is not the danger of further deformity. My second criticism is, that I think it a mistake to cut out the V-shaped piece from the margin of the tarsal cartilage, in order to bring the everted lid at once into apposition with the other. I have made the operation where the eversion was even greater than in the cases that have been here presented; and what seemed at first a great redundancy of tissue, turned out not to be an excess. I see no advantage, therefore, in cutting out this piece; and there is the serious objection to it, that the tarsal cartilage, where divided, is very apt not to unite. In one of the cases reported by Dr. Post, there was left a notch in the cartilage from this cause, and in the other, the outer canthus was drawn in.

I will also refer to two points which Dr. Post has mentioned, but which I think he has not dwelt upon sufficiently. One is, that if an old ulcer refuses to heal you may make it close sometimes by scarifications in the sound skin near by. This plan I have more than once employed, and it depends upon a very important principle. The cicatricial tissue to replace the lost integument, can form only (with rare exceptions) from the margin of the adjacent skin; it can always form thus to a limited extent, but only to such extent. When, for instance, an ulcer has been closed to the extent of an inch from its margins by the quasi-tegumentary cicatricial tissue, this ceases to form, and the further closure of the sore must go on, if at all, by its contraction and the drawing in of the adjacent skin. In rare cases, the ring of new skin may be an inch and a half in width; more frequently, it will be only three-fourths of an inch. Now, if we make an incision in the sound skin, half an inch or an inch outside the original margin of the ulcer, we give a chance for the ulcer to contract, and new skin will form in the gap we have made. If we multiply these incisions, as in a case of contraction of the elbow in my own practice, we may often gain very much. I could wish the doctor had given more weight to this very interesting point, which I think has not been enough considered by the profession, namely, that we may secure the healing of a large sore by making incisions around it, so as to increase the formation of new skin.

To come now to my last point, Dr. Post has said it will be proper to employ anaplasty when sufficient integument can be obtained to cover in the entire surface. He might have gone further. It is proper, sometimes, to resort to anaplasty when only a portion of the open surface can be covered in. This was the especial point which I sought to establish in an operation first proposed by me in 1846, and successfully practised in

1854, an account of which was published in the *Buffalo Medical Journal*, vol. xiv., p. 433. It gave rise to a friendly passage at arms between myself and the late Dr. John Watson, Dr. Watson's comments and my reply being published in the *New York Journal of Medicine*. I claimed that an old, and hitherto incurable, ulcer of the leg might be closed completely by transplanting, from the opposite leg, a piece of integument which was much smaller than the size of the ulcer to be closed; and this I have now verified by seven similar operations. The small piece of sound skin placed in the centre of the old ulcer, will, after it has become adherent to the granulations underneath, at first contract and become thick; after a time it will gradually flatten, spread out, and become thin; and, finally, new skin will begin to form around its margin and extend outward towards the new skin forming from the circumference of the old sore, until at last they will meet and coalesce. In this way a small piece of skin may finally close up a very large ulcer.

Dr. Buck.—The case of the patient * that has been exhibited, Mr. President, appears to me to be a very remarkable one for its perfect result. It certainly surpasses any other instance that has come to my knowledge, and I think is to be regarded as one of the finest achievements in this particular line of surgery, showing what well-directed, and especially persevering, skill can accomplish. This result must have cost months of daily care.

In blepharoplasty, I have had little experience, and that confined to the upper lid; but such as I have had does not confirm Dr. Hamilton's remarks upon division of the tarsal margin. I have, in different instances, divided the tarsus throughout its entire vertical dimension. In my last very intractable case of ectropion, I made two such complete incisions through the cartilage, and left it to itself. The patient gained a temporary respite from the effects of the ectropion, but the ultimate result was a failure, and a different operation had to be performed. In this case, as in others of division of the tarsal margin, I was surprised at the perfect healing of the incisions—so perfect that it required a careful examination to detect the extremely slight notch at the margin which marked their place.

Dr. Hamilton referred to a case which he had presented before the Academy, where the tarsal margin was not cut, and yet there was no excess.

Dr. Buck mentioned a case of extreme eversion, which he had under observation, where the tarsal margin was drawn down more than half an inch from its normal position, and the conjunctival surface was dry. He asked whether, in such a case, Dr. Hamilton would not excise a portion of the lid.

Dr. Hamilton thought he would not. He had done so in his early operations, the tarsus in some cases uniting well, in others leaving a notch. But for the last fifteen years he has in no case divided the cartilage.

Dr. Sayre related a case upon which he had seen Dr. Hamilton operate, where the excess of the cartilage appeared to him so very great, that he had urged the removal of a V-shaped piece. But the doctor had said, "wait awhile;" and the result was a complete cure, with no redundancy. He thought too much stress could not be laid upon the case of Sarah Sharp, presented by Dr. Post. It was a most remarkable success, and should have its effect upon the profession. His own success in that line had been very good, and he had attributed it mainly to persevering effort in stretching the cicatrices.

* Sarah Sharp; case of complete cure of deformity, where back of hand was firmly united by cicatrix to surface of forearm; detailed in Dr. Post's paper, p. 270.

Dr. Weber, from the experience of two cases, judged that the cicatrization of an ulcer might be much aided by the incisions in the neighboring skin, where this was movable; but where it was fixed, they would have no effect. In one case of an obstinate ulcer near the ankle-joint, two incisions were made in the sound skin without result, and twenty-four hours afterwards the skin would not yield to pretty firm traction with adhesive plaster. In the other case, of a burn upon the inside of the thigh, that had resisted other means, healing was speedily secured by the incisions.

The great value of a portion of sound skin in the centre of a granulating sore, as a starting-point for the cicatrization, Dr. Weber had seen strikingly illustrated in a case of phlegmonous erysipelas, involving a part of the leg and the whole dorsum of the foot. A large amount of skin had sloughed away, but there was left about a square inch in the midst of the destruction, connected with the general healthy integument by an isthmus one-fourth of an inch in breadth, on the outside of the foot. It was beautiful to observe the effect of this in completing the cicatrization of an ulcer which could hardly else have healed without transplantation. In a similar case, affecting the back of the hand, a piece of skin thus left had favored the complete healing.

April 23.—Dr. D. Tilden Brown read a paper upon *The Isolation of the Insane*, of which we shall give an abstract in a future number.

(To be continued)

Correspondence.

STUDY OF NERVOUS DISEASES IN GERMANY.

To the Editor of the Medical Record.

Sir—Those whose attention has not been specially called to the subject of nervous diseases will probably be somewhat surprised at the statements that I am to make in regard to the amount of attention that is now given to this department of science in Germany. The treatment of nervous diseases by electricity has here commanded a wider interest than in any other country. I am told by Hirschwald, the well known medical publisher of Berlin, that during the last ten years *fifty* treatises on electro-therapeutics have appeared in Germany alone. In Berlin there are at present half-a-dozen physicians who devote themselves specially to electro-therapeutics; in Vienna there are three or four well-known authors in this department, chief of whom is Benedikt, whose elaborate and original, though somewhat Germanesque, work on electro-therapeutics has attracted considerable attention among the leading neurologists of all countries.

Berlin is the home of Romberg, whose writings on nervous diseases have become popularized through the translation of Sieveking. Though now somewhat advanced in years, he yet continues in active service. Berlin was the home of Griesinger, one of the ablest writers and thinkers on psychological science of this generation; but he has recently passed away, and his loss is much deplored.

The *Journal of Psychology and Nervous Diseases* is ably edited here by Drs. Westphal and Ludwig Meyer. The best known of the electro-therapeutists of Berlin is Moritz Meyer, whose excellent treatise Dr. Hammond has recently introduced to the profession of America.

The patient industry of these Germans in their special departments is as wonderful as it is proverbial.

I have attended private clinics for electro-therapeutics here as early as half-past seven in the morning. Dr. Hitzig, to whose courtesies I am much indebted, meets his charity patients in his "policlinik" three times a week, in the morning hours beginning at half-past seven, just the time that the physicians of London and New York are accustomed to devote to their private patients. Careful records of these cases are kept, and the progress minutely recorded from day to day. The money question seems to be almost entirely ignored by these patient lovers of science. Even their highest authorities—Traube, Frerichs, Langenbeck, etc., do not (except in very rare instances) make the large incomes of their brethren of corresponding reputation in London and New York. The average income of the great body of the profession is small indeed; and the astonishing, and probably exaggerated statement has been made to me, that not one in ten of the physicians of Berlin supports himself comfortably by his professional income alone. It is a fortunate compensation for these moderate fees that the prices of living in Germany are not regulated by the standard of New York.

The tendency to specialization, for which the Germans are so distinguished, is observed in the hospitals. In the charity hospitals of Berlin, a separate ward is devoted to nervous diseases, under the direction of Dr. Westphal In this ward are found the cases of locomotor ataxy (or Tabes, as they very frequently term the disease in Germany), myelitis, tic-douloureux, epilepsy, chorea, and the different forms of paralysis. The prominent agent for the treatment of these diseases is electricity, which is administered carefully and perseveringly under the eye of the resident physicians. In Germany the galvanic current is used much more than the Faradaic. An excellent galvanic apparatus for office or hospital use is made in Berlin; but a portable variety, such as we employ in New York, I have not yet seen.

TYPES OF NERVOUS DISEASES IN GERMANY.

Dyspepsia, constitutional neuralgia, and nervous exhaustion seem to be much less frequent in Germany than in America. Indeed the term dyspepsia, so familiar to nearly every family among the leading classes of American society, is here but little used. A friend of mine, who consulted a German physician for some unpleasant symptoms, was told that he had the "American disease — dyspepsia." On the other hand, locomotor ataxy, fatty degeneration of muscles, and allied afflictions, seem to be quite frequent here, so far as I can judge both from the literature of nervous disease, and from what I have seen in the wards of the hospitals and at the private cliniques.

GRAEFE.

The many friends of Graefe in America will regret to learn that his health has been so feeble that he was obliged to suspend active labor and flee to Switzerland. I was informed, however, by one of the assistants of his clinique, that his affection, which was of a pulmonary character, has been so far relieved by a change of air and scene, that there is a good probability of his return to the duties of his profession.

The popularity of Graefe among the masses of the people is, I think, unparalleled in the medical history of modern times. It is to be accounted for partly by the fact that, although of noble descent, his sympathies have been with the people; partly by his well-known clinique, where 6,000 patients are annually treated; partly by a personal magnetism that both fascinates and inspires, and partly, also, by the good fortune in having been born in a land where scientific men are better appreciated and more highly honored than in any other nation of our times.

A distinguished writer, matchless in sarcasm, has said of Westminster Abbey, "that it contained many monuments without a name, and many names without a monument." The same remark will not so truly apply to modern Prussia, for here the laurels are prepared for men of thought as well as men of action, for philosophers and thinkers as well as for kings and generals, for those who save life as well as for those who destroy it. Even Berlin, fresh from the late excitement of a victorious war, seems by no means to bring the first fruits of its affection to the altars of royalty, at least so far as can be judged from the numberless pictures, photographs, and other similar expressions of the popular feeling that abound in the streets and shops of the city. Far above the names of king William and Bismarck, and surmounting them as the dome of a cathedral surmounts its minarets and towers, is the name of Alexander von Humboldt. Such popularity of scientific men is unknown in America or in England. They here accord to Humboldt the honor which we are accustomed to bestow only on military deliverers and distinguished statesmen, and the shop windows and book stores of Berlin display almost as many remembrances of that great leader in science as New York presents of Washington and Lincoln.

Next to Humboldt, the scientific name which is dearest to the masses of the people in Berlin is that of Graefe.

In Germany the number of those among the people who are interested in matters of science is much larger than in America. Scientific books meet with readier acceptance, and command a wider interest among the laity, than with us. In walking the streets of Berlin, I am continually surprised to see the latest works of Virchow, of Graefe, and other medical authorities, exhibited for sale in the shop windows, in company with fashionable novels and all the varieties of general literature.

The relative number of scientific minds is so much greater in Berlin than in most other cities, that works of abstract science are sought for and appreciated by many for whom they were not specially prepared.

In Germany there are a number of scientific writers, who, like our distinguished countryman, Prof. J. W. Draper—and Prof. Huxley, Darwin, and Herbert Spencer in England—keep fully abreast of the progress of medical science, though they never practise the art of healing. Among the most prominent of these at present are, Moleschott, Carl Vogt—who contemplates, it is said, an early tour to America—and especially Buchner, whose writings, already translated into English, have passed to a new and revised edition.

Very truly, G. M. BEARD.

BERLIN, September 10, 1869.

THE CLIMATE OF LARAMIE VALLEY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—The constantly increasing number of patients who come under our observation every year suffering from *rose cold* or *hay fever*, has turned the attention of medical men to those localities in which it does not exist. Hitherto the sea-coast, or some of the islands in the Northern lakes, have constituted almost the only places of refuge from this annoying affection. Since the opening of the Pacific Railroad many inquiries have been made about the influence of the climate of the high table-lands which lie between Nebraska and Salt Lake upon this disease, and I therefore take the liberty of laying before your readers the following extracts from

a letter written by Dr. H. Latham, of Wyoming Territory:—"The Laramie Valley is situated at an altitude of 7,100 feet above the sea. It is on both sides of a pure rapid mountain stream fed by the melting snows of the Snowy Range. The Black Hills bound the valley on the east, rising to the altitude of 2,000 feet above it. On the south and west is the great Snowy Range, at a distance of 30 miles, rising 7,000 or 8,000 feet above it. The hills and mountains are covered with short grasses, while higher upon their sides pines and other evergreens grow. The valley is covered with short grass throughout its whole breadth. The hills, mountain sides, and valley are alike dry. The soil is a light sandy loam, and the wash of the mountains has little or no vegetable deposit. I do not know of a square rod of marsh in the Territory. The grasses finished their growth and ripened during June, until which time they wore a deep green, but now (Aug. 6th) owing to the absence of rain and the dry character of the soil, they are far advanced in curing—so much so as to give a rich straw-color to plain and hill-side. On the mountain, hill-side, and valley I do not know of a sandy place where the air can stir up any fine dust. The temperature is mild, and the air exceedingly dry. In both particulars—temperature and humidity—it is equable—more so I think than any other region on this Continent. In proof of this I enclose meteorological notes for July. During four years' experience I have never seen a case of asthma or hay fever. . Of all the supposed causes of this last troublesome disease, I cannot see a single one in our soil, climate, or vegetation. I have, however, never met a case brought here as a test. . . . . I can only give my opinion, and say that I know of no reason why there should not be complete immunity from hay fever in these mountains. So far as the question of the adaptability of this climate to the wants of those who are suffering from debility in any form and from any cause, I answer unhesitatingly that it has no equal in America during the summer months."

The meteorological notes inclosed fully corroborate all that has been stated above regarding the uniformity of temperature and freedom from moisture. The highest temperature at any single observation is 86°, while the lowest at any one observation is 40°. The highest daily mean of temperature is 75·50°, and the lowest during the month of July is 57·50°, while the average daily mean is 64·64°. There were only four days in which rain fell, and that only to a depth of $\frac{47}{100}$ of an inch, while the remaining 27 days were pleasant. Observations with the hygrometer rarely gave a daily mean of less than 55°, or more than 72°. This extreme dryness of the air would seem to be almost the sole phenomena from which any unfavorable influence upon hay fever might arise. It is possible, but not probable, that this light, dry air may cause an irritation of the nasal and pharyngeal mucous surfaces. Its immunity from the other causes of this form of asthma renders this Laramie Valley worthy a trial by those who are compelled to go to some favorable region to avoid the discomforts of the above-mentioned diseases produced by the abundant vegetation of more highly cultivated localities.

Very truly yours,
HENRY M. HURD, M.D.

CHICAGO, Oct. 1869.

HUDSON COUNTY HOSPITAL, N. Y.—Mrs. Edwin A. Stevens, of Hoboken, N. J., lately donated the sum of ten thousand dollars to the projected Hudson County Hospital, which is to be located in Hudson City.

New Instruments.

A NEW INSTRUMENT

TO FACILITATE THE REMOVAL OF

PLASTER OF PARIS DRESSINGS AND STARCH BANDAGES.

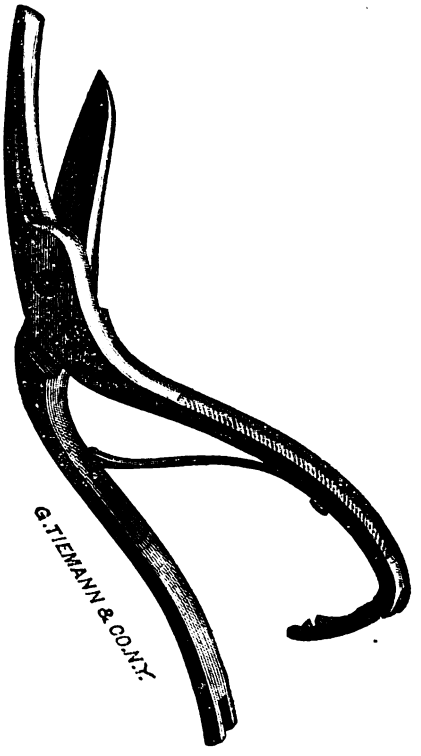
By M. H. HENRY, M.D.,

PHYSICIAN TO NEW YORK DISPENSARY, ETC., ETC.

THE value of any surgical apparatus or appliance is lessened or increased according to the facility or difficulty of its application or removal. One of the strongest objections urged against the use of plaster of paris dressings has been the difficulty of their removal, either to examine the wound or release the parts when thorough union of the fractured bones has taken place. I have, on many occasions, shared with others the annoyance, difficulties, and loss of time attending the removal of concrete plaster of paris dressings placed about fractured limbs; but their value and superiority over all other dressings where absolute security, nice adjustment, and freedom to the patient are required, has led me constantly to their adoption.

A short time ago I made some experiments with various cutting instruments, amongst others, Scutten's pliers—commonly used for starch bandages—but failed to find any fitted for the hardened plaster. Having made up my mind what was necessary, I made a drawing, and, with the assistance of Mr. Pfarre, of the firm of George Tiemann & Co., produced a pair of forceps which, I think, will be found useful to the profession, and accomplish the object for which they were designed.

The illustration conveys a clear idea of the form and



features of the instrument. The upper blade is heavy with clean incisive power. The lower blade is long-

est, and blunt pointed, and made in the form of an elevator, which enables the operator to insinuate that part under the dressings, and, if necessary, press on the soft parts beneath without doing any injury. He can then cut as easily through the plaster of paris dressings as the tailor does heavy cloth with the ordinary shears. The handle is nearly at a right angle to facilitate movement, and adds to the cutting force.

42 East 21st Street, Oct. 6, 1869.

Medical Items and News.

The College of Physicians and Surgeons began its sixty-third session on the 4th inst. Among the new features in the course, as announced, we notice a Clinique on Diseases of Children, by Prof. Jacobi (2 P.M., Fridays), and a Clinique on Genito-Urinary Diseases, by Prof. Parker (3 P.M., Thursdays). The introductory address was given by Prof. McLane, whose audience crowded the large lower lecture-room, while the County Society above was forced to adjourn for want of a quorum.

The Doctor humorously alluded to the difficulties of his office—expected, as he was, to give new students sound advice, and, at the same time, to interest an audience of old doctors. The official robes had been brought out annually for sixty-odd years, worn threadbare, turned, worn threadbare again; and yet whoever donned them, it was thought, had only to shake off their dust to give them the freshness of their prime.

After a cordial greeting to the class, the speaker addressed himself especially to those students in their novitiate, saying that he should avoid "glittering generalities" and speak plainly upon points near to their practical work. Before entering upon any profession a man should ask himself: What is the object of his pursuit? What are the means by which to follow it? What are the sacrifices to be made and the obstacles to be met in the way? What are the chances of final success; and what the rewards attending it? Let him find answers to these questions that shall assure him he has chosen the proper course, for "a cripple on the right road beats a racer on the wrong." Most of the failures in medicine are probably traceable quite as much to inconsiderate choice as to lack of ability. If one is entering upon it seeking ease or wealth, he had best forthwith turn his talents in some other direction, for he could hardly make a worse investment. If he would keep pace with advancing science, the physician must lead a life of laborious study; and if he would be true to the humane spirit of his profession, he must often render his most arduous services for no other reward than the satisfaction of giving relief to suffering. It is only, then, a love for the profession of medicine, for its wide-reaching scientific studies and its opportunities for practical helpfulness, that can justify its choice or command success. But to one who enters upon it with this enthusiastic love the present is a most auspicious time; for it is a time of searching inquiry and advancing liberalism in every sphere, when men are getting long levers under the errors of the past, and toppling them over into the rushing tide of knowledge. We are already passing the stage of skepticism, in which the "expectant treatment" was the natural reaction from the absurd drugging of a half century ago, and a wise and rational therapeusis is becoming gradually but firmly established.

The greatest difficulty that meets the young student is the multiplicity of subjects to be studied. The only way is to take them up systematically, shunning the fate of poor Superficialis Hurry, so graphically depicted by Reynolds. Avoid so crowding the mind with facts that it cannot classify them and see their relations. For the first year study only anatomy, physiology, and chemistry; resolutely keep clear of the hospital and the more tempting "practical" lectures; and devote yourself to the scalpel, the microscope, and the test-tube. Take only brief notes in the lecture-room, and write them out from memory at home. (But when walking the hospitals, clinical notes should be full, and the cases followed along from day to day, so as to cultivate the habit of careful observation.)

In contrast with the rapid strides of scientific medicine look at the halting steps of quackery. Taking homœopathy as the most popular and successful form of it, where is the follower of Hahnemann who is doing anything for the real advancement of science? The responsibilities imposed by a sound medical education cannot be shaken off. Each one must do his part in enlarging the domain of knowledge as well as in narrowing that of suffering; and though he may not gain wealth or public distinction, he will find his sure reward in an honorable competence, the pleasures of scientific investigation, the society of intellectual minds, and the delight of doing good.

Woman's Medical College of the New York Infirmary.—The second session of this institution was opened on Tuesday, the 5th inst., Prof. Ball delivering the introductory address, which we print elsewhere. Since its last session the College has leased the building on the south-east corner of Second avenue and Eighth street, adjoining the Infirmary, and so remodelled it as to adapt it admirably to its present purpose. With these increased facilities and an augmented number of students, the new session begins auspiciously. We have before spoken of the excellent plan of instruction here pursued, requiring three progressive courses of lectures, weekly recitations held by the Professors, and annual examinations by an independent Board. Special attention is given to practical anatomy and pharmacy, and to practical clinical work in the Infirmary. The Faculty and Board of Examiners are now constituted as follows:

Faculty: Elizabeth Blackwell, M.D., Professor of Hygiene; A. B. Ball, M.D., Prof. of Materia Medica; G. H. Wynkoop, M.D., Prof. of Physiology; Samuel B. Ward, M.D., Prof. of Anatomy; Arthur Mead Edwards, A.M., Prof. of Theoretical and Practical Chemistry; Robt. F. Weir, M.D, Prof. of Principles and Practice of Surgery; Emily Blackwell, M.D., Prof. of Obstetrics and Diseases of Women; James R. Leaming, M.D., Prof. of Principles and Practice of Medicine; Chas. T. Terry, M.D., Lecturer on Pathological Anatomy; Lucy M. Abbott, M.D., Assistant to Chair of Obstetrics, and Teacher of Clinical Midwifery; John Winslow, M.D., Demonstrator of Anatomy.

Board of Examiners: Professors Willard Parker, Isaac E. Taylor, Austin Flint, Stephen Smith, Benj. W. McCready, Alfred L. Loomis, Samuel St. John, and C. R. Agnew.

Manhattan Eye and Ear Hospital.—This new Eye and Ear Hospital, which was incorporated at the last session of the Legislature, has leased the house, No. 233 East 34th street, between 2d and 3d avenues, to be used until their new building is erected. The hospital will be open for the reception of patients about the 10th of October. The directors are as follows:—William Butler Duncan, President; William Paton, Vice-President; William Harman Brown, Treasurer; S. M. Blake, David S. Egleston, William Walter Phelps, Walter Edwards, Jr., James A. Roosevelt, E. G. Loring, Jr., D. B. St. J. Roosa, Charles Lanier, George T. Strong,

William B. Crosby, D. E. Hawley, Anson G. P. Dodge, William E. Bliss; Cornelius R. Agnew, Secretary.

Drs. C. R. Agnew, E. G. Loring, and D. B. St. John Roosa, are the surgeons to the institution.

Dr. F. O. Earle, of Chicago. — Resolutions of respect on the death of Dr. F. O. Earle. Whereas the Chicago Medical Society has been deprived of one of its members by the death of Dr. F. O. Earle.

Resolved, that we lament his loss, and although he had been with us but a short time, we had learned to respect him for his gentlemanly deportment and professional ability. Although quite young in the profession he had given promise of more than ordinary ability, and could look forward to a noble and useful future in the profession of his choice. We cannot but feel that the close application and devotion to the labors of the profession during his stay among us, had much to do in determining his early death, which seemed too soon. The profession has lost an earnest worker. To his family and relatives we may be permitted to express our sincere sympathy in their bereavement.

Resolved, that a copy of these be sent to the family, and that they be published in the Medical Journal of this city and the Medical Record of New York.

R. G. Bougue, M.D.
J. D. Fitch, M.D.
A. H. Foster, M.D.

Library of the American Medical Association, Washington, D. C.—We have received the following circular which we publish in full for the purpose of commending it to our readers:—

The Medical Profession, and Scholars generally, are aware of the ephemeral form in which most of the early American contributions to the literature of medicine were given to the world, and indeed, in which many of the more recent are being published. This condition of much of our professional literature is deeply regretted by all, and particularly by those whose taste and research lead them to refer to this class of works, when the fact is made apparent that whole editions of tracts and books have entirely perished through neglect. With a view to provide against such a contingency, and preserve for the benefit of the profession, in some accessible and central locality, copies of all home medical publications, the American Medical Association, at its annual meeting in May last, resolved to establish at Washington, D. C., a Library or Repository of American medical works, to which it is believed all the current medical literature of our country will be cheerfully, promptly, and constantly contributed.

It is designed that this repository shall contain copies of every contribution by American physicians to the literature and science of medicine, from the earliest settlement of our country, no matter how or where published, including all the books, pamphlets, journals, and even unpublished manuscripts, that can be collected.

Nearly all physicians have some book or pamphlet of the character indicated, which may contain facts relative to the Diseases of his section published nowhere else, which they can contribute without inconvenience, and which of itself is of trifling value, yet when many such treatises are assembled together from all parts of our country, embracing its nosology from the earliest period of its settlement, they will form a collection of the greatest importance to the profession.

The Librarian of Congress has kindly consented to receive and reserve as a special deposit, in the Government fire-proof building, any collection of medical works the American Medical Association may make, and will catalogue, and keep them in condition to be readily consulted. The accommodation thus offered the Association for accumulating and preserving its library free of cost is generous and most encouraging. Gentlemen having scarce and valuable American medical publications will not hesitate to deposit them in such a safe, central, and national repository, where they will be preserved from destruction and their usefulness secured to the profession.

An appeal for contributions to this library is now made, personally and distinctly, to each and every American Physician, Medical Publisher, and Editor, to deposit copies of their works in this repository, where they will be carefully kept for reference and catalogued with the name of the donor.

We, the undersigned, members of the American Medical Association, having been selected to carry into effect, as far as practicable, the Resolution of the Association to establish a Library, have now completed all the necessary arrangements for the reception and preservation of those books which may be sent to our care. Contributions of the class of works mentioned are therefore respectfully and earnestly solicited from every source. Packages may be sent by mail or by Adams' express, to either of us, which will be promptly acknowledged on reception, and a record of titles kept. The library-mark of the Association will be pasted on the inside of the cover of each volume, which will contain also the name of the donor.

Hoping that you may further the project to the extent of adding at least your own productions,

We remain, respectfully,

Robert Reyburn, M.D.,
Librarian.
Joseph M. Toner, M.D.,
Library Committee.

Homœopathic Journals.—Dr. T. C. Duncan, of Chicago, says that the total number of homœopathic journals in the world is now twenty-four. Just half of these are in America: three quarterlies, a bi-monthly, and eight monthlies.

New Publications.

Books Received.

The Physical Life of Woman; Advice to Maiden, Wife, and Mother. By Geo. H. Napheys, A.M., M.D., Author of Compendium of Modern Therapeutics, etc., etc. Philadelphia: Geo. Maclean. 1869.

A Course of Practical Chemistry; Arranged for the Use of Medical Students. By William Odling, M.B., F.R.S. From Fourth and Revised London Edition. H. C. Lea. Philadelphia: 1869.

A Handy-Book of Ophthalmic Surgery; for the Use of Practitioners. By John Z. Laurence, F.R.C.S., Assisted by Robert C. Moone. Second Edition. Revised and Enlarged by J. Z. Laurence. Philadelphia: H. C. Lea. 1869.

The Pathology and Treatment of Stricture of the Urethra and Urinary Fistulæ. By Sir Henry Thompson, F.R.C.S., etc. From Third and Revised London Edition. Philadelphia: H. C. Lea. 1969.

Sleep, and its Derangements. By William A. Hammond, M D., Professor of Diseases of the Mind and Nervous System, &c., Bellevue Hospital Medical College. Philadelphia: J. B. Lippincott & Co. 1869.

Errata.—Dr. C. C. Lee's article, page 342, line 19, read *wound*, instead of *womb*; and on page 343, line 5, *patency* for *potency*.

Original Communications.

ULCERATED SCIRRHOUS CANCER OF THE BREAST.

RECESSION AND CICATRIZATION DURING A NEW METHOD OF INTERNAL AND EXTERNAL TREATMENT.

By F. A. BURRALL, M.D.,

SURGEON TO THE NEW YORK NORTHERN DISPENSARY.

A TENDENCY to intractable ulceration is one of the marked characteristics of cancer. When such ulcerations heal spontaneously it is a very rare event, and worthy of careful notice. When, as in the present instance, a cancerous tumor recedes, and the ulcerations cicatrize during the use of therapeutic agents which are as likely—perhaps more likely than any which we know—to favor or produce such a result, the case possesses an additional interest.

Ellen Victory, of Ireland, aged 42 years, married, but never having borne children, with dark complexion and dark hair, and of a nervo-lymphatic temperament, came, May, 1869, under my treatment at the Northern Dispensary. Her father, as she states, died of a "fever;" her mother of "asthma," at 72; one sister died of "cholera;" another, healthy, is now living and married; one brother died of "hasty consumption," and another of "bleeding from an abscess in the neck." The patient is "pitted" from an attack of variola during childhood, but has until recently enjoyed good health. Menstruation occurs every two or three months.

About 3½ years ago, patient noticed a small lump, like a pea, on the left side of the right breast, near the lower border. This she irritated by fingering, and it began to increase in size. Ulceration took place at this point about a year ago, in the previous spring, and she applied at different places for aid.

On presenting herself at the Dispensary the breast was about as large as half a cocoa-nut shell, uniform and movable over the subjacent parts. The gland was almost entirely occupied by a tumor, which, especially on the outer side towards the axilla, was of the usual density of scirrhus. An elevated ridge ran towards the axilla, and the axillary glands were enlarged. On the inferior circumference of the breast was an ulcer about ½ inch wide, ¼ inch deep, and 4½ inches long, with roundish, irregular, prominent edges, discharging a fetid pus.

The general health was somewhat reduced, and the patient cachectic. Profuse hemorrhages occurred occasionally, which produced debility, and she suffered from a frequent pain, which she described as "running through to the backbone." Dr. W. R. Whitehead, my colleague, saw the patient when she came to the Dispensary, and her disease was regarded by both of us as a well-marked instance of scirrhous cancer. The case did not seem favorable for a removal of the breast, and I commenced her treatment by giving her a lotion for the cancerous ulcer, consisting of a drachm of liquid carbolic acid in a pint of water; but as she informed me that she had been for months using a lotion consisting of three drachms of carbolic acid and four of glycerine to a pint of water, I directed her to discontinue the weaker solution and resume the stronger. She had found that this application made the ulcer less offensive.

This treatment was continued until May 29th, without any apparent change in the tumor or ulcer. The axillary glands were smaller at this date, but I am unable to decide how much importance to attach to this fact, since patient states that subsequently, during the summer, these glands were sometimes larger, sometimes smaller, but always swollen.

I now decided to begin the internal administration of carbolic acid, mixed in a solution of the sulphate of quinine, containing four grains to the fluid ounce. The carbolic acid was commenced in drop doses, three times daily, and soon increased to three, and subsequently to four drops, in a tablespoonful of the solution.

During the summer several small pinkish tubercles formed on the upper portion of the breast, as well as near the nipple; these broke and formed round ulcers, which coalesced, and subsequently healed, leaving shallow, pinkish, depressed cicatrices with serpiginous outline. A slight retraction of the nipple occurred as the ulcer in that vicinity healed. These ulcerations resemble what Mr. Pemberton, in his work on cancer, describes as the superficial form of scirrhus.*

Soon after commencing the internal use of the medicine the patient states that she noticed her pain to be less acute, her hemorrhages less severe, and the discharge from the ulcer more scanty. At one time, however, she was pale and dispirited, in consequence of the death of two of her acquaintances from mammary cancer. The course of her own disease seemed to retrograde somewhat, and a patch of skin below the breast became purplish, as if invaded. I did not observe any improvement in her malady until the beginning of August, when there seemed to be a slight softening in the indurated upper portion of the tumor. It was so slight as to be doubtful. As I was going away for a short time, I ordered a double quantity of medicine for the patient, requesting her to come to the Dispensary at an appointed time

Sept. 25th.—The ulcers have all healed; the largest one leaving a white puckered cicatrix about four inches long, which resembles the mouth of one of those old-fashioned work-bags when drawn together with

sliding strings. There are marks of two depressed cicatrices with serpiginous borders; one running from

* Clinical Illustrations of Various Forms of Cancer, and other Diseases likely to be mistaken for them, with especial reference to their Surgical Treatment. By Oliver Pemberton, Surgeon to the General Hospital, Birmingham. London, 1867.

the nipple inferiorly, the other on the upper portion of the breast. Three small tubercles remain in the skin towards the axilla, which are fading. The tumor is reduced to about one-third of its previous size, and is still very hard on its outer border. There is no enlargement of the axillary glands, and there has been no discharge for about five weeks Patient labors daily as a washerwoman, and feels well. The internal treatment is continued, but the dose of carbolic acid has since been reduced to a drop, and the quinine a grain. This will be modified according to circumstances. Should a preparation of iron be required, the muriated tincture would seem to be the best, since glandular enlargements sometimes diminish rapidly during the use of this medicine.

The photograph which accompanies this article was taken on the 7th of October, at which time the tumor was smaller than on the 25th of September, and there were no bad symptoms about the case.

With regard to the strength of carbolic acid used, Mr. Curran, the competent apothecary of the Northern Dispensary, tells me that two drops equal a grain of the crystals. He also says that the medicine was renewed at least twenty times. It was prescribed in the quantity of four ounces. Averaging the dose of carbolic acid at three drops, the amount of medicine taken during the summer would be half an ounce of crystallized acid and five drachms and one scruple of sulphate of quinine. In addition to this there would be the notable quantity of sulphuric acid used for dissolving the sulphate of quinine. The medicine did not at any time disagree with the patient, and she was directed in such an event to discontinue it until she saw me.

In looking for some method to restrain, if possible, the growth of mammary cancer, two indications are in most instances prominently presented: the first to relieve the cachectic condition of the general system, and secondly, to limit, if may be, excessive cell growth. The use of tonics seems also indicated, not only to improve the general health, but to aid whatever special alteratives may be given, since the class of medicines termed alteratives often act to advantage only when a certain degree of constitutional vigor is present. With regard to a medicine which may modify cell growth, we know that therapeutical agents even of an obnoxious character will sometimes modify the disordered nutrition of a part without any injurious effect upon the general system. The effect of carbolic acid when locally applied is, as is well known, to arrest cell growth and those changes of fermentation and zymosis which are so intimately connected with cell growth; but what will be its effect when administered internally in suitable doses combined with similar agents? Can this deadly disease be modified by attacking it internally and externally at the same time? These questions still await solution, and reasoning based upon hypothesis is eminently unsatisfactory.

With our present statistics of the fatal nature of cancer, all that can with any propriety be claimed in the present instance is, that an ulcerated scirrhous cancer, which had for months been treated with an external application of a watery solution of carbolic acid and glycerine without arresting its progress, began to diminish in size, and soon cicatrized, when the internal use of carbolic acid and sulphate of quinine was added to the treatment. It will be observed that carbolic acid, glycerine, sulphuric acid, and sulphate of quinine are all antizymotics, while sulphuric acid and sulphate of quinine are also tonics. It is also worthy of notice that the first apparent sign of improvement, the softening, was on the internal portion of the tumor. I have examined a number of journals, but have not found, nor do I know of any similar case in which this treatment has been previously used.* The result may be only a coincidence, although such coincidences in the disease are extremely rare; but the treatment would certainly seem to justify a further trial, since the worth of it can only be tested by experiment. It might also be valuable in other forms of cancer, or of cancer in other situations.

The accompanying wood-cut gives the microscopic appearance of the exudation mingled with a weak solution of carbolic acid, added for the purpose of preserving the specimen.

In conclusion, it is worthy of notice that the superficial and deep forms of scirrhus existed simultaneously in the breast, that the ulcer cicatrized firmly, without any sloughing out of the tumor, while it may also be hoped that the general system is not threatened with a reappearance of the disease in some other region, since the axillary induration has disappeared.

INTESTINAL FISTULA

RESULTING FROM AN ABSCESS OCCASIONED BY CONTUSION.

BEING THE HISTORY OF A CASE PRESENTED TO THE NEW YORK PATHOLOGICAL SOCIETY, SEPTEMBER 8, 1869,

By ALFRED C. POST, M.D.,

PROFESSOR OF SURGERY, UNIVERSITY MEDICAL COLLEGE, NEW YORK.

E. P. G. was thrown from a buggy in the month of August, 1867. He was at that time about 32 years of age, and was of a highly nervous temperament. He received a severe contusion in the left lumbar region, near the crest of the ilium, about its posterior third. Inflammation and suppuration followed, and, during the month of September, the abscess was opened, and there was an escape of purulent matter mingled with the fæces. From that time he continued to pass his fæces partly through the opening in the lumbar region, and partly through the anus. Usually the larger part of the fæcal discharge was through the fistula, and the smaller part through the rectum; but sometimes the proportions were reversed. When enemata were thrown up the rectum, they passed out at once through the fistulous opening, which was just above the crest of the ilium, at the junction of its posterior and middle third. After a time an exfoliation took place from the crest of the ilium, and a portion of dead bone was discharged through the fistulous opening. Opiates were freely given to relieve the sufferings of the patient; and after a time he became so accustomed to their use that he suffered extreme depression of spirits when many hours were allowed to elapse without repetition of the narcotic. Occasionally he had difficulty in the evacuation of his bladder, and it became necessary to resort to the use of the catheter. He came under my care on the 6th December, 1868. I found him much emaciated, very restless and irritable, and extremely depressed in spirits, unable to live without opium, but shrinking from the idea of becoming a confirmed opium-eater, being familiar by his reading, and in some measure by his experience, with the tortures which are induced by the terrible habit. When I saw him, he had taken little or no

* Since the above was written, I have been informed by Dr. F. D. Weisse, of this city, that a similar treatment has been tried in Paris, by Dr. Declat, with gratifying results. The class of cases was different from the one referred to in the present article, and the remedies differed in some respects. In both carbolic acid was administered internally and externally. For the particulars of Dr. Declat's treatment, the reader is referred to Dr. Weisse's remarks before the New York County Medical Society, Oct. 18, 1869.—(*See next Number.*)

opium for several days, and he had passed sleepless nights. His appetite was generally good, and he took an ample supply of food. But sometimes his appetite failed, and his digestion was often impaired. He was in the habit of riding in a carriage almost daily. He was able to walk a short distance, and to go up and down stairs, but not without some difficulty, as his left thigh was habitually flexed to a moderate degree, and he could not fully extend it. The attempt to extend the thigh gave him pain. His evacuations through the fistula were of a soft semi-solid consistence, and took place very frequently during the day, so that it was impossible to keep him clean. I directed two-thirds of a grain of sulphate of morphia to be given at regular intervals of eight hours, so that he took two grains in the twenty-four hours. Under this treatment he obtained some comfortable sleep, and there was a diminution of his general restlessness and irritability.

During the month of January, 1869, there was a great increase of his lameness; his thigh became more flexed, and fluctuation became distinctly perceptible at the upper part of the thigh, beneath Poupart's ligament. When pressure was made at this part, pus and fæces escaped through the fistulous opening in the lumbar region. On the 30th January I held a consultation with Doctors Buck and Stone, and with their advice and aid I made an incision over the femoral ring, where fluctuation had been perceived, but could not conveniently get access to the cavity containing the matter in that situation, as it was overlaid by the femoral vessels. I then made an incision through the fascia lata, beneath the anterior inferior spinous process of the ilium, and introducing my finger under Poupart's ligament, I found that it passed freely behind the fascia iliaca into an open space between it and the iliacus muscle. I introduced a tent to maintain the opening. After a few days this opening gave issue to a free discharge of pus, and afterwards of fæcal matter. But the amount of fæces passed through the groin was generally much less than that which was discharged through the opening above the crest of the ilium. During the month of March, there being a pretty free discharge of fæces through the rectum, and a portion also being discharged through the opening below Poupart's ligament, I made a cautious attempt to close the opening near the crest of the ilium. For this purpose I engaged Doctor Hubbard to construct a truss with a pad adapted to the fistulous opening. It was worn at intervals for two or three days, but it did not entirely prevent the escape of fæces through the fistula, and it occasioned pain in the bowels. Its use was therefore discontinued. Soon after this attempt the patient was attacked with dysentery, frequent and painful discharges of blood and mucus taking place through both fistulous openings; at this period there was comparatively little discharge through the rectum. A dose of castor-oil was administered, and followed by tincture of opium, twenty drops every hour or two, according to the frequency of the discharges. The dysentery gradually yielded, and the discharges resumed the character which they presented before the attack. The patient, however, rallied imperfectly. He soon began to decline more rapidly; his appetite became capricious, and soon entirely failed; his digestion was much more disturbed; and his evacuations were sometimes dark, frothy, and offensive. A troublesome cough was superadded to his other symptoms, and became a source of great annoyance to him. He died on the 16th July, which was his thirty-fourth birthday. For several months before his death his thigh had become much more flexed on his trunk, and his leg was flexed at an acute angle upon his thigh. His foot had become quite œdematous from the impediment to the circulation occasioned by the flexure of the hip and knee. The flexure of the hip and knee continued obstinately after death. A post-mortem examination was made on the afternoon of the day of his death. On laying open the abdominal cavity, the intestines presented in general a healthy appearance, but were nearly empty and collapsed. The descending colon appeared a little contracted opposite to the crest of the ilium. On placing a finger over it, it felt hard at that point. On laying it open, its cavity was found so much contracted at that part that it would scarcely admit the end of the little finger. A firm fibrinous band, a third of an inch in breadth and thickness, passed across the constricted portion of the colon. Behind this band the colon adhered to the posterior wall of the abdomen, opposite to the crest of the ilium, over an annular space about three quarters of an inch in diameter. Within this ring the posterior wall of the colon was deficient, and the fascia iliaca was also perforated to the same extent. The opening of the integument corresponded with the opening of the fascia iliaca, and the track of the fistula to the surface did not exceed an inch in length. Beneath the fascia iliaca was a track extending down to the opening in the groin, and this track could also be traced along the pubes, under the femoral vessels, and down to the vicinity of the tuber ischii. The opening from the colon above the transverse band to the fistulous track near the crest of the ilium, and the opening from the colon below the stricture to the same fistulous track, were much more free than the opening from the intestine above to the intestine below, in front of the transverse band. The pelvis contained about half a pint of serum in the peritoneal cavity. When this was sponged out, a circumscribed patch of inflammation was found at the lowest part of the peritoneum, on the right side of the rectum. This patch was hyperæmic, and covered with a fibrinous exudation which could be easily scraped off. A pretty close adhesion existed between the peritoneum investing the right lobe of the liver and that lining the diaphragm, but it could be easily torn asunder. The viscera of the other cavities were not examined. I was somewhat surprised to find how limited were the adhesions of the colon, and how little disturbed were the relations of the other parts, except by the burrowing of matter beneath the fascia iliaca. It appears to me highly probable that lumbar colotomy would have been successful in relieving all the symptoms of intestinal obstruction, in arresting the burrowing of matter beneath the fascia iliaca, in restoring the erect posture of the patient, and in adding to the duration and comfort of his life. I proposed the operation several months before his death, but did not strongly urge it, as I did not suppose the condition of the parts to be as favorable as I found it at the post-mortem examination.

GENERAL CARCINOMA OF STOMACH WITHOUT VOMITING.

By J. W. GROSVENOR, M.D.,

LOCKPORT, N. Y.

Alexander Freeman, aged 73 years, by occupation a farmer, presented himself at my office October 14, 1868.

History.—About six months has been suffering from uncomfortable and painful sensations in the region of the stomach, especially soon after meals. During the past month pain has been quite severe, and during the last few days paroxysms of pain have been excruciating Bowels have been excessively constipated. Appetite

variable. Has consulted several physicians without any permanent relief.

Present Appearance.—A man of large frame, and symmetrically formed. Considerably emaciated, so much so that pulsation of abdominal aorta is distinguished without difficulty. Abdomen greatly flattened. An indistinct hardness in the region of stomach, though no well-defined tumor. Tongue coated with a yellowish-brown fur. Circulation sluggish, but regular. Prescribed ten grains of bismuth and five grains of pepsin to be taken before each meal, and at night a pill containing one grain each of blue pill and extract of hyoscyamus.

Oct. 16th.—Pain of stomach less frequent and less severe. Bowels less constipated. Treatment continued. Five weeks afterwards, on Nov. 22d, was called to see him at his house. During this interval he had consulted itinerant quacks, and had been constantly growing worse. He was suffering from pain and distress in his stomach, and from a feeling of great exhaustion. Pulse full, and 84 per minute. Radial arteries observed to be calcareous. No appetite; a loathing for all kinds of food. Prescribed morphine *pro re natâ*, and bismuth and pepsin as before. Learned that he had been a rather hard drinker all his life. Advised a gradual reduction of his whiskey, and a diet of milk and lime-water. Under the use of tonics, consisting mostly of quinine and mur. tinct. of iron, animal broths, at the end of two months he was able to go outdoors; suffered scarcely any positive pain in his stomach; bowels regular; appetite improved; had gained a little flesh. He had abandoned whiskey and substituted a sour wine, in which he took a raw egg three times per day.

After remaining in this comparatively comfortable condition about two weeks his appetite failed, the pain and disagreeable fulness in his stomach returned at irregular intervals, and also an occasional feeling of faintness, sometimes lasting several hours. His feet and legs became somewhat swollen. Extravasations of blood were observed on his forearms. During the last two months of his life he steadily failed in strength and appetite. His feet and ankles, though occasionally œdematous, were most of the time free from œdema. His pulse ranged between 70 and 80, full and regular. During the last week of his life his feet became extremely œdematous; pulse ranged from 75 to 105, small and weak; took scarcely any nourishment except one or two eggs in wine each day. Death occurred April 9, 1869, just about one year from the time he first observed any trouble in the region of his stomach.

Post-mortem, 36 *hours after death.*—Emaciation extreme. Only the abdomen examined. Stomach adherent to liver, pancreas and omentum. Omentum in region of stomach studded with hard spherical bodies, ranging in size from a mustard seed to a large pea. Microscopical examination showed these to be enlarged lymphatic glands. Capacity of stomach about two gills. It contained one half-gill of a grumous and purulent-looking liquid. Coats of stomach inelastic and thickened throughout; the thickness varying from one-third to five-eighths of an inch, in some parts softened and easily torn. Remaining abdominal organs apparently healthy.

MICROSCOPICAL NOTES BY DR. WM. B. LEWIS OF NEW YORK.

"The structure of the portions you sent me has been carefully examined. There were two—one, a somewhat spherical mass, proved to be a slightly enlarged lymphatic gland; the other, a slice of the stomach, an eighth of an inch thick, five-eighths of an inch wide, and over two inches long. When immersed in glycerine and water they had a pale, bloodless appearance, and in the section by transmitted light it was easy to see the coarser fibrous reticulations, some of them doubtless emptied vessels. Both specimens were comparatively dry when received. It was impossible to determine which had been the peritoneal and which the mucous edge of the larger portion. Toward one side, however, there was a darker and more condensed structure extending to the free border. Upon examination by the microscope it was impossible to distinguish between the various layers. The field was filled with a mass of yellow elastic tissue, in the meshes of which were to be seen multitudes of small cells and nuclei with some amorphous molecules. On the side, remote from the condensed and disclosed structure, were found a few irregularly scattered, smooth muscular fibres, but no proper muscular layer was to be distinguished. It is thus seen that the disease was not an hypertrophy but a heterologous formation producing fusion and change of all the normal parts.

"The cell elements were all comparatively small, measuring in length from the 750th to the 1500th of an inch, and being generally almost wholly occupied by a single nucleus. Their shape was roundish, ovoid, broad-columnar, occasionally polygonal, and abruptly fusiform. The nuclei were roundish, oblong and pointed. These characters were similar in all parts. In the gland above mentioned I found nothing distinctive. Large and small glandular cells were embedded in the fibrous areolæ.

"The case is undoubtedly carcinoma of the stomach."

The two peculiarities of this case to which I would direct special notice are: 1st. The lack of vomiting. As a rule, vomiting is present, sooner or later, in cases of gastric carcinoma. Its absence in this instance may be explained by the lack of any obstruction at either the cardiac or pyloric orifice. 2d. The involvement of the whole stomach in the disease.

NEURALGIA:

ITS TREATMENT BY ELECTRIZATION.

BY

A. D. ROCKWELL, M.D., AND GEO. M. BEARD, M.D.

No. 3.

CENTRAL NEURALGIA.

THE pathology of neuralgia is necessarily involved in doubt. Morbid anatomy teaches but little concerning it, because an opportunity to examine carefully the tissues of a "neuralgic nerve" is seldom offered. It is, however, regarded by Anstie as probable that all neuralgias depend on atrophy, or a tendency to it, in the posterior roots of the affected nerve, or of some portion of the gray matter of the central nervous system.*

Several circumstances connected with the history of this symptom tend to confirm the idea of the author just mentioned.

First.—It is observed that neuralgia is as constantly hereditary as almost any other disease. It does not always manifest itself as such in successive generations, but it may alternate with epilepsy, chorea, hypochondriasis, insanity, and various other neuroses.

Second.—There are cases of reflex neuralgia where an irritation of one nerve causes pain in another, which has only a central connection with the first.

Third.—The relief obtained by section of a nerve is, as a rule, merely temporary.

The neuralgia generally returns in the central end. This theory of a central origin, however, cannot by any

* A System of Medicine, Reynolds. Vol. 2, p. 749.

means be accepted as a universal law. It is disproved by the many neuralgias that arise from merely local causes, such as pressure, ulceration, etc., in constitutions where no hereditary tendency to nervous conditions exists, and before the injury to the nerve itself could possibly impair the vitality of any portion of the gray matter of the nervous centres. While it is impossible to state to what extent the brain and spinal cord are at fault in the production of our common forms of neuralgia, it is well known that it is almost always associated with certain central pathological conditions. It frequently accompanies cerebral effusions, chronic softening of the brain, and meningitis, and is almost an invariable symptom of locomotor ataxy and spinal congestion.

We have found that, as a rule, the neuralgic pains of *locomotor ataxy* are very decidedly relieved by electrization in some form. The pains accompanying spinal congestion are also frequently ameliorated by the same method of treatment.

The symptoms of *ataxy* offer no indication by which we are to be governed in the selection of the form of electricity for the relief of its neuralgic pains. The descending faradaic current has generally succeeded, and we have reported a number of typical cases.

Recently, however, a case came under our observation in which the galvanic current proved far more efficacious.

The patient had manifested well-marked symptoms of the disease, but for a short time. He had suffered, however, from the first, quite severely in both legs, but most acutely in the right. The faradaic current proved as ineffectual as previous remedies in affording relief; but after the first application of the galvanic current from thirty-two cells of Stöhrer's battery, immediate benefit was experienced, followed, after a few more similar séances, by complete relief.

PERIPHERIC NEURALGIA.

By peripheric neuralgia is meant that form in which the cause is supposed to be seated, not only external to the nervous centres, but also in some portion of the very nerve affected. These causes are various.

First.—Neuritis—or more frequently, perhaps, inflammation of the neurilemma, or sheath of the nerve—is an important factor in the production of neuralgia. This inflammatory condition, again, may depend upon some form of mechanical irritation, as, for example, long-continued pressure of the child's head in labor, on the sciatic plexus, or by the concentrated poison of gout, rheumatism, malaria, or syphilis, acting locally.

Second.—Neuroma of spontaneous origin, or as the result of a wound or other injury to the nerve, has long been recognized as another cause of peripheric neuralgia.

Third.—The continued action of cold and wind upon a part, exhausting debility, or excessive fatigue, may give rise to the local form of the disease. In many and perhaps the majority of cases of peripheric neuralgia there seems to be no special cause.

It manifests itself without warning, and sometimes disappears as suddenly as it came.

Such cases would reveal after death no pathological change, but are what is commonly termed functional or idiopathic in character. Whether the cause lies in a disturbance of the electrical equilibrium, resulting in molecular change in the nerve-trunk or otherwise, we may never know. Doubtless, however, all pain depends on structural change of some portion of the nerve tissue, although in the majority of cases this change is so slight as to escape detection.

The treatment of peripheric neuralgia is necessarily empirical in the last degree. No manifest cause presents itself, as is generally the case in the constitutional and reflex varieties; consequently the disease must be met as experience dictates, without regard to logical deduction.

Mild cases of the so-called peripheric neuralgia are of every-day occurrence, and readily yield to treatment or recover spontaneously.

Others, of a more severe and persistent type, are frequently met with, but are successfully treated by the internal administration of quinine, valerianate of zinc, colchicum, etc., as well as by a variety of local applications. Not unfrequently, however, all the ordinary internal remedies and external appliances prove unavailing. It is in such instances, well illustrated by the following case, that electrization is frequently followed by admirable results.

Mr. M., aged 65, a man who had enjoyed most excellent health all his life, stated that he suffered acutely and almost constantly during the day, from a persistent and aggravated form of facial neuralgia. When in perfect repose, as in the night after retiring, he suffered but little and slept soundly; but whenever he attempted to converse, or to eat, or in any way to use his jaw, a sharp shooting pain of a most intense character, and attended by an increased flow of saliva, was excited along the course of the fifth pair. *The action of the direct rays of the sun invariably produced the same result.* Some four years previously, while at dinner, he first felt an acute pricking pain under the ear. These attacks annoyed him occasionally, but in the course of twelve months they became more frequent and severe, and for the last two and a half years he had suffered as stated above. The first application of the faradaic current gave him immediate relief. The paroxysms of pain were excited less readily, were less severe and not so prolonged. He continued to improve under the influence of three more applications, but in order to hasten the cure, an inverse galvanic current, from eight cells of Stöhrer's battery, was substituted. The effect was temporarily disastrous. The paroxysms of pain returned with all their former severity.

Fortunately, however, a few gentle applications of the faradaic current repaired the evil produced in this case by the galvanic, and *in less than six weeks* from the commencement of treatment, and after having received fifteen applications, he had so far recovered as to be unconscious of pain during the ordinary efforts of talking and eating.

No relapse has occurred during the six months since treatment was discontinued.

It is a well-known physiological fact that the third division of the fifth pair, or great sentient nerve of the face, is a mixed nerve containing both sensitive and motor fibres, and that the principal branches of the seventh pair derive sensitive fibres from inosculation with the fifth pair. This readily accounts for the sympathy that has been observed to exist between them. This point, together with several others of importance, is well illustrated in the following case:—

A lady patient had for eighteen months suffered excessively from periodical attacks of facial neuralgia. Nothing seemed to afford her permanent relief. One morning, soon after an attack of great severity, she awoke, and, to her great consternation, found that the left side of the face, which had been the seat of the neuralgic affection, was completely paralyzed. A few applications of the faradaic current approximately relieved the paralysis; but, unfortunately, the neuralgia immediately returned with all its former intensity. After a number of weeks of periodical neuralgic suffering, the pain again left her suddenly, and, as before, the paralysis

returned, rendering the face even more unsightly than in the first instance. Some two years previously, before the onset of the neuralgia, the patient had been subject to frequent attacks of intermittent fever. On several occasions during the last eighteen months, a slight chill and fever usurped the place of the periodical neuralgia. These facts led us to suppose that the whole difficulty depended on a determination of the malarial poison alternately to the fifth and seventh pairs, producing in the one case neuralgia, and in the other paralysis. In support of this opinion we refer to the following quotation:—

"Dr. Todd, alluding to the dependence of periodical neuralgic affections on the determination of some poison to a particular nerve, as the paludal poison, or some matter generated in the system, expresses the opinion that morbid matters may affect a motor nerve just as they affect a sensitive; causing in the former case paralysis, as in the latter they determine neuralgia."*

There is another point of interest connected with this case which offers a diagnostic sign of considerable value, between peripheric and the constitutional, central and reflex varieties of neuralgia. It is this: A subcutaneous injection of morphine in the immediate neighborhood of the nerve affected relieved the pain much more quickly and completely than the same operation in some distant part of the body. In constitutional and central neuralgias it manifestly matters little, so far as the relief of pain is concerned, in what portion of the body we make the injection of morphine.

REFLEX NEURALGIA.

The term reflex, as applied to paralysis, is at once common and suggestive. In the same way it is applicable to neuralgia.

As in children paralysis frequently follows the irritation of teething or dysentery, and in older persons that of urinary disease; so neuralgia of distant parts may result from uterine and other disorders. Neuralgia of the fifth pair, caused by a carious or false tooth, is a common and well-known reflex result of mechanical irritation. The treatment of reflex neuralgia is by no means so empirical as that of the peripheric variety. If a carious tooth is at the root of the evil it must be removed.

If the cause can be traced to uterine disease, the skill of the gynecologist is called for. Occasionally electrization, through its power of subduing local irritation or inflammation, effectually relieves the remote neuralgic pain, of which the irritation or inflammation is the cause.

In the case of a young lady who had suffered for several months from the most severe neuralgic pains down the left leg, tactile examination revealed very marked tenderness to pressure in the left ovarian region. No other portion of the body was especially susceptible to the touch. It is proper to state that the patient was not at all hysterical, that exercise aggravated the pain, and that the neuralgia of the limb was in proportion to the tenderness over the ovary. She was immediately relieved by the faradaic current, and completely recovered in the course of six weeks, after having received twelve applications.

By the above remarks and cases it is observed that in all its varied forms—constitutional, centric, peripheric, and reflex—neuralgia is susceptible of relief by the method of electrization, either general or localized.

1st. In the constitutional variety of neuralgia the treatment should invariably be by the method of general electrization with the faradaic current. With few exceptions, its tonic and calming effect soon becomes manifest.

2d. Certain neuralgias of central origin may be temporarily, and even permanently benefited; but, as a rule, it is evident that we are not to expect very satisfactory results.

3d. Peripheric neuralgias resulting from anatomical lesion, or the pressure of morbid growths, cannot, of course, be expected to yield to a remedy so simple as electrization. The majority of cases of this division of the disease, however, would seem to be merely functional in character, and are, according to our experience, amenable to treatment by electrization.

4th. Concerning the reflex variety of neuralgia, it is readily seen that electrization, through its power of allaying local irritation, and giving tone to relaxed parts, may frequently be of undoubted service.

* A System of Medicine. Reynolds, p. 758.

A CASE OF TETANUS.—RECOVERY.

By A. N. BROCKWAY, M.D.

I was called, April 11th, to see F. S., a German boy, sixteen years of age, whose case presented the following history:—Feb. 26th, he stepped on a rusty nail, which penetrated the right foot, immediately behind the little toe. The wound healed in a few days without giving him much trouble. He subsequently worked in a sewer, and frequently had his feet wet for several hours at a time. On the 2nd of April he noticed a stiffness about his jaw, giving him some pain, and he was unable to chew his food as well as usual. The trismus gradually increased, and four days after he commenced to have spasms, which had continued up to April 11th, when I saw him.

I found him exhibiting the following symptoms:—rigidity of the legs, abdomen, back and arms, spasms recurring as often as every ten minutes, opisthotonos well marked, inability to open the mouth more than about an eighth of an inch, some fever, pulse 110 and weak, with considerable dyspnœa.

I immediately gave him ʒ ss of the bromide of potassium, and ordered him to have of the same grs. x every hour, with beef-tea and egg-nog freely. In the evening felt somewhat relieved, pulse 105, very little fever, the spasms recurring with about the same frequency as in the morning. The same treatment to be continued.

April 12th. Had slept none at all during the night, pulse 110, some fever, spasmus about the same. Treatment continued.

April 13th. Pulse 100, spasms every fifteen minutes, rigidity of muscles and trismus about the same. Treatment continued, with a brisk cathartic.

April 14th. Pulse 90, had rested considerably during the night, trismus less. To relieve the intense pain in the back gave him subcutaneously gtt. x. of Magendie's solution of morphia, and in addition to the bromide ordered grs. ij. of srapnia every four hours.

April 15th. Improved. The jaws could be opened a quarter of an inch. Abdomen and back still very rigid. Ordered the bromide every two hours, and srapnia as before, and gave gtt. x. of morphia subcutaneously.

April 16th. Patient had slept pretty well, the spasms recurring every half hour. The bromide every two hours, gtt. x. of morphia as before, and of quinine grs. ii. every three hours.

April 17th. Patient considerably improved. Had slept well, pulse 90, spasms and trismus less. Treatment as of yesterday.

April 19th. Improving. Treatment continued.

April 20th. Bromide every three hours, otherwise treatment continued.

April 21st. Patient not quite as easy. Bromide every two hours, with other treatment as before.

April 23rd Considerably improved. Gave the morphia injection with the bromide every three hours, and the quinine every four hours. Srapnia discontinued. Has had no spasms except at night when he awoke. From this time the patient steadily improved until entire convalescence was established.

HARLEM, Sept. 9th, 1869.

Progress of Medical Science.

DE-NICOTINIZED TOBACCO.—T. Williams, M.D., of Milwaukee, Wis. (*Chicago Med. Jour.*), speaks of tobacco as follows: It is not generally known that tannic acid de-nicotinizes tobacco. If the bowl of a pipe is filled about one-fourth full of tannin, filled up with tobacco and smoked, the aroma of the tobacco is almost entirely destroyed, and the smoker scarcely feels the effect of the tobacco on his nervous system. It is well known what inveterate smokers the Indians are, and still we never see any injurious effects of this habit upon them. This Dr. W. thinks is due to the form in which they use their tobacco. They rarely or never use the pure leaf. Their "Killikinnick" is composed of equal parts of tobacco and the inside bark of a species of the *cornus coricea*. Sometimes the admixture of tobacco in it is not more than a fourth. This bark is astringent, and abounds in *tannin*, and therefore in a great measure neutralizes the effects of the tobacco. The fancy brands of smoking tobacco labelled "Killikinnick," sold by tobacconists in papers, are pure tobacco, and have no real claim to the name. The Indian name for the particular species of swamp dogwood which they use for smoking is "Kinnikinnick;" hence the name. The Indians peel the inside bark of the shrub, dry it, pound it to a powder in their stone mortars, and then mix intimately with the crumbled tobacco.

TREATMENT OF PUERPERAL FEVER.—J. Randolph Weir, M.D., Pittsburgh, Texas (*Med. Archives*), has seen the treatment laid down by what are considered standard authorities fail to arrest puerperal fever so often, that he became discouraged and sought other plans, of which in the following he found a certain cure: First, fomentations over the region of the uterus, continued twelve hours, renewed every twenty-five to thirty minutes; simple mush in winter, or peach tree leaf in season is just as good.

Veratrum (Norwood's), dose, seven to ten drops; intervals two hours, and alternate with spiritus terebinth. ℥ j., dulcis nitr. ℥ ij., of this ʒ ss to the dose. At the same time rinse the uterus with an uterine syringe, with tepid water and sweet cow's milk, six of which are to be thrown up every four or five hours. In from ten to twelve hours a remission of fever, with free perspiration, ensues.

Then omit the veratrum, and substitute balsam copaiva, fifteen to twenty drops, every two hours, and inject the uterus as follows; quinine, forty grains; tepid water, six ounces. This should be thrown into the uterus, and the attending physician should know that it is properly done. Then a full dose of paregoric. Let the patient rest four or five hours, and give five grains quinine with morphia or opium, pulvis Doveri or paregoric. In the last fifteen years Dr. W. has not seen a case die under this mode of treatment. It is here, and here only, the virtue ascribed to veratrum has met his expectations. During the exhibition of the veratrum, and for several hours, the child must not nurse from the mother's breast.

OXALIC ACID.—Prof. Chas. A. Joy (*Journal Applied Chemistry*) says of oxalic acid, by way of refreshing our knowledge of poisons, as follows: This is the most powerful of the common poisons, and has been more frequently employed than any of the acids. Its use in the kitchen for cleansing brass, and in the counting-room for removing ink-stains, makes it familiar and accessible to everybody. It has been the occasion of accidental poisoning in numerous instances, having been mistaken for cream of tartar, sulphate of potash, or sulphate of magnesia. In cases of intentional poisoning it is sometimes mixed with sugar to conceal the acid taste. The presence of this acid in sorrel, pie-plant, or rhubarb, and in tomatoes out of season, has led to numerous instances of illness, if not of death. The use of rhubarb for the manufacture of a domestic wine must be deprecated, as the presence of so much oxalic acid would render the wine a dangerous beverage. The best antidote in cases of poisoning with oxalic acid is lime-water, and if that be not readily at hand, pounded egg shells would afford relief; sometimes strong coffee, or ether, can be administered to the advantage and relief of the patient.

THE MIGRATION OF WHITE BLOOD CORPUSCLES.—Harrison Allen, M.D., Prof. of Comp. Anatomy in the University of Pennsylvania (*Cinn. Repertory*), in an article on "Modern Methods of Investigation," reviews Cohnheim's assertion, that in certain conditions of the parts involved white blood corpuscles are capable of migrating through the walls of capillary blood-vessels into perivascular areas, and states that it is a convenient theme to employ in reviewing the significance and origin of the modern theories of pathology.

He believes that from the natural sciences is derived the idea which underlies and gives tone to the thought of the century. More particularly in the departments of minute anatomy have our pathologists derived their inspiration. All we have that is true in pathology can be traced back to the time of the founding of these sciences—general and comparative anatomy, and zoology—on the schools of Bichat and Cuvier.

In 1846, Aug. Waller (*Lond., Edin., and Dublin Philos. Mag.*), in examining the mesentery of a toad and the tongue of a frog, found that both the red and the white corpuscles may traverse the walls of the capillary vessels. These experiments were consigned to obscurity, while a quick recognition awaited their reception fifteen years afterwards.

The reason why Waller's experiments fell still born while Cohnheim's attained an early notoriety, was, because the average mind of the profession was not prepared to accept in 1846 what seems correct enough in 1869. White corpuscles wore then less protean shapes than now, while it was rank heresy to dispute the specific quality of the mucous, pus, and salivary corpuscles. Much less was it believed that the blood held quite a little fauna and flora of its own, and that all that was necessary to prove the assertion was to look for the animals.

THE NEED OF VACCINATION.—An intelligent medical practitioner writes in the *London Druggist*, that druggists as well as practitioners should, on every possible occasion, disarm the public of the prejudice that now exists against vaccination. There can be no doubt in the mind of any reflecting person of ordinary observa-

tion as to the benefits of vaccination in the prevention of small-pox. The town of Melbourne, Australia, has been the scene of an outbreak of an epidemic of this fell disorder, which has been stayed and obliterated by indiscriminate vaccination.

To show that some other skin diseases may be developed after the performance, which outbreak is more due to the strumous or otherwise unhealthy condition of the patient than to the operation of vaccination *per se*, the following case is in point:

Two children were vaccinated from a third child directly. One of the vaccinated ones did well; the arm of the other inflamed, and an eruption broke out over a large part of the child's body. Here the matter used was identically the same, and used under exactly the same circumstances, and yet, in one instance, evil results follow; and they follow, undoubtedly, from an evil constitution in the recipient of the poison.

A New Preservative against Fire.—M. Reinsch (*Lond. Druggist*) says that rock salt applied to timber is a preservative against fire, dry rot, and noxious insects. The author recommends the use of salt water; that is to say, a solution of rock salt of moderate strength for the use of fire-engines during a fire, as by far more effective than water; but in order that the salt should not injure the working parts of the engines, they will immediately afterwards have to be played with fresh water again.

Phagedena Arrested by Electricity.—Professor Schwanda (*Lond. Med. Mirror*) brought before the Medical Society of Vienna, in January last, two cases in which the usual remedies failed to arrest phagedena. The constant current was then used, and the chancres healed in a short time. The Professor does not venture to explain the *modus operandi*, but thinks that unspecific phagedenic ulcerations would be equally benefited.

Venereal Cases Treated in the London Hospitals.—At three London hospitals—viz., St. Bartholomew's, Guy's, and the Royal Free—the venereal cases actually enumerated as treated reach to the yearly number of 73,700; while at King's College, University College, St. Mary's, Westminster, London and Middlesex Hospitals, sufferers from one form or other of venereal disease form from 20 to 33 per cent. of the out-patients daily seen.—*Lond. Med. Mirror.*

An Inflamed Eye the Cause of Pain in the Ear and Teeth.—Jonathan Hutchinson, F.R.C.S., Surg. to the Royal Ophth. Hosp., Moorfields (*Lond. Medical Mirror*), publishes the following: A young man, the subject of acute ulcers of the cornea from injury, with hypopyon, chemosis, and much pain, complained that his eye made his ear and his teeth ache. He never heard it mentioned so definitely before. Here we have an instance in which a pain, certainly beginning peripherally, induced pain in two other distinct and somewhat distant peripheral parts. In some cases in which patients complain of pain in various parts supplied by one fifth nerve, including the eye, we are apt to suspect that the pain may originate centrally.

A Singular Case of Retinitis Pigmentosa.—The subjoined case of *retinitis pigmentosa* came under the observation of Jonathan Hutchinson, F.R.C.S., Surg. to the Royal London Ophthalmic Hospital, Moorfields: In June, 1868, a healthy laboring man, aged 49, from the south coast, came to the hospital on account of failing sight. He said that he did not expect that anything could be done for him, as it was a family complaint, and inherited from the grandmother, who had been blind. He stated that fourteen of the descendants of the grandmother mentioned were more or less blind, including two of his own children, and that in all the failure had been very slow. Both eyes were found in a similar condition, the retina spotted with pigment streaks, and the discs pale gray, and with very small vessels. The man could still keep at his work. He was very intelligent, and his history was fully relied on. —*Lond. Med. Mirror.*

Curious Property of Tellurium.—The salts of tellurium have the property of imparting to the perspiration a most offensive odor. It is said that Dr. Bunsen, who experimented on his own person, was compelled to absent himself from society for four weeks on this account. It is surmised that tellurium will never be extensively used as a medicine.—*Pacific Med. and Surg. Journal.*

A Novel Case of Hyperostosis. — According to the authority of Virchow, cases of hyperostosis, or partial gigantic swellings, are frequent, especially in the face, and as a consequence of injuries, from extraction of teeth, for example. The following case related by Sancerotti is one of a general character, and rare. A man thirty-nine years old, in whom, in the course of four years, the face, vertebræ, scapulæ, clavicles, sternum, ribs, femur, and the soft parts corresponding with these bones, were observed to increase in size; deformities which appeared the more monstrous because the other bones remained of their original size. The eyes were forced to the level of the forehead, and the lower jaw extended an inch beyond the upper. He suffered exceedingly from dyspnœa, and the weight of his body increased from 262 pounds to 392. The specific gravity and quantity of the urine were notably increased by salts and earthy phosphates. — *Journal of Cutaneous Medicine.*

A Case of Wound of the Knee-Joint.—A painter, while descending a ladder, brought his knee violently in contact with a projecting nail, which inflicted a punctured wound directly over the inner aspect of the joint, about an inch from the patella. Only a soreness was felt for three days after, when he started to walk 15 miles into the country, which, owing to the pain and inflammation excited, he was unable to do until the second day. On the eighth day after the accident he was seen, the knee being semi-flexed. He was suffering from severe inflammation. The parts were red and swollen, and very painful to the touch. He was ordered opium, low diet, with water dressings, and perfect quiet. Circumstances required his removal, which excited renewed inflammation, and from this date he grew rapidly worse, redness and swelling involving the whole joint. Suppuration became profuse. There was loss of appetite, profuse night sweats, and a general decline of the vital energies. A free incision was then made a little within the inner hamstring, and a large quantity of dark grumous matter escaped. Carbolic oil (ʒ j. to ℥ ij.) was then injected into the joint, and the knee enveloped with cloths wet with the oil. Suppuration at once ceased, there was no more pain, the fever and night sweats ceased, and convalescence rapidly followed.

Lesions of the Brain.—A case is recorded by Dr. Day, in which a man, by the explosion of a gun, had the breech lodged in his brain. He carried the breech for months, walking from Walsall to Newcastle-on-Tyne, and back again, in search of work, and showing no evidence of special cerebral disease. The man died in jail, and the breech of the gun was removed from the brain.—*Lancet.*

Simultaneous Occurrence in the Same Patient of Two Acute Exanthemata.—Two cases are adduced, showing the possibility of the occurrence at the same time of two acute exanthemata in the same person. In the first case there was a combination of variola and measles. On the fourth day of a febrile attack, there occurred the indication of a variolous eruption. On the next day the ordinary prodromata of measles presented themselves. By the eighth day both eruptions occupied the patient's skin. At the end of three weeks the patient was well. In the other case, there was a combination of measles and scarlatina. After the usual prodromata there occurred the usual exanthem of measles, and three days subsequently it disappeared. At the same period, with febrile excitement, croupose angina, and nephritic affection, there was a diffused scarlet eruption, which disappeared at the end of three days, and was followed by a lamellar desquamation.—*Am. Journal of Medical Sciences.*

Amputation at the Hip-Joint.—Dr. T. D. Johnson reports, in the *Pacific Medical Journal*, a successful case of hip-joint amputation in case of a gun-shot wound. The ball had penetrated the hip at the interior portion of the trochanter major, completely destroying the entire shaft of the bone, and rendering amputation necessary.

Physical Disease from Mental Strain.—At the last annual meeting of the British Medico-Physiological Association, Dr. Richardson, F.R.S., read a paper on physical disease due to mental strain. The author first pointed out the importance of studying the influence of impressions made through the mind upon the organs of the body, and urged that in this day, when the mental powers were so terribly overtaxed, this study demanded earnest and immediate recognition by the general not less than by the psychological physician. He then described the different classes of men who are engaged in labors which call forth the energies of the mind, dividing them into copyists, authors, artists, speculators, professionals, and students. He defined the nature of the work of these respectively, and the diseases to which they were subject as the result of their toils.

Lastly, he turned to the diseases in detail, placing diabetes, paralysis, intermittent action of the heart, and arterial enervation with symptoms simulating aneurism, as disorders directly connected with mental strain; and cancer, epilepsy, and insanity as diseas s connected directly with the same cause—*i. e.*, as disorders brought out by the overstrain in persons who have an hereditary tendency to them. Regarding insanity itself, the author held that work, and even hard work, of a mental character, does not of itself bring out the disease, but that by such work the organs of the body, which are purely physical, are most severely injured. Insanity, he thought, was rather a disease engendered in ignorance and mental inactivity; so that, in fact, the cloddish parts of the populations were the most determinate producers of insanity, and the educated and most intelligent parts of our populations were the producers and propagators of the more serious and fatal of organic diseases.

An interesting discussion, in which many members took part, followed the reading of this paper, and the author's view that insanity is not induced by simple hard mental work was very strongly confirmed.

Indication of Longevity.—H. P. Gatchell, M. D., Kenosha, Wis. (*The U. S. Medical and Surgical Journal*), reports a conversation with the late Dr. Beteley, of Cleveland, concerning the relation of the lobe of the ear, in which the latter informed Dr. G. that he had noticed in almost all old people, whom he had observed, long lobes to the ears.

Dr. Powell was accustomed to derive his indication of longevity from the angle subtended by a line drawn from the outer angle of the eye, through the orifice of the ear, and another drawn from the same point to the occipital tuberosity. But the angle in this case is determined by the depth of the occiput, and finds its explanation in Buchanau's doctrine of this region as that of animal force.

Dr. G. believes that the lobe of the ear is directly related to the medulla oblongata, and only indirectly to the occiput. There is a general relation between the development of the occiput and the medulla.

The physician can assure the patient with long lobes, in the absence of malignant disease, of the probability of long life. He can also speak with more confidence in regard to recovery from either acute or chronic diseases, when the lobe is long than when it is short. Nor will he fail to observe that a large proportion of sickly people have a short lobe, or none at all.

Where a naturally strong constitution has suffered from excesses, the long lobe has become withered and wrinkled. And when one side of the brain, as indicated by a seated pain, has suffered more than the other, he will find the lobe of that side more withered than the other. Whatever tends to enfeeble the constitution, whether excessive toil, study, or venery, contributes to that change in the lobe.

Treatment of Delirium Tremens.—Dr. Fleming, of the Queen's Hospital, Birmingham (*British Medical Journal*), treats delirium tremens as follows: The patient is placed in bed. For a diet, milk and strong beef-tea, alternately, every 4 hours, and gradually, as the appetite improves, chicken, mutton, etc., until the stomach can accept ordinary food. Alcoholic stimulants in every form are stopped at once and entirely. When the patient is faint the following is prescribed: ℞ Ætheris clorici (Duncan & Flockhart), spiritus ammoniæ aromatici, sing., 3 iij.; tincturæ lavandulæ comp., 3 iv.; spiritus vini gallici, 3 x. Two drachms for a dose, in a wine-glass of water, every 2 or 4 hours.

The further addition of alcoholic poison having been stopped, the objects of treatment are: *First*, to eliminate the poison already in the blood. *Second*, to control its effects. *Third*, to favor convalescence. To promote elimination by the skin and kidneys the following mixture is given: ℞ Spiritus ætheris nitrosi, liquoris ammoniæ acetatis, sing., 3 v.; soda phosphates, sodæ et potassa tartratis, sing., 3 v.; aqua ad ℥ xx. M. Two ounces every 4 hours, 2 hours before meals.

A colocynth and hyoscyamus pill, with from ¼ grain to a grain of the acetic extract of colchicum, is given should an active purge be indicated. To control the effects of the poison, two drachms of the following are to be taken every 4 hours, one hour before food, in a large wine-glassful of water: Ten drachms of dilute phosphoric acid, with 20 drachms of tincture of hops. To induce sleep, the subjoined draught is ordered: ℞ Tincturæ cannabis, M. xxx. ad lx.; liquoris morphiæ acetatis, M. xv. ad lx.; spiritus ætheris nitrici, 3 i.; aquæ pimenti ad ℥ ij. M. This medication is pursued until convalescence is established, when the tonic regimen is strictly enforced, including pure air, good food, cold bathing, with zinc and iron as blood tonics.

Irrigation in the Treatment of Wounds, Stumps, &c.—Mr. Isaac Walton (*Lancet*), believes *irrigation* superior to carbolic acid or any other form of dressing, when there is sloughing or danger of pyæmia. Instead of the foul materials which are generated being allowed to accumulate, as they do in a poultice, and un-

dergo decomposition, they are washed away as soon as they are formed.

His apparatus consists of a small reservoir, from which hang some worsted threads; the water is thereby conveyed to the diseased part, over which is laid a piece of linen, with the lower edge hanging free, so that there can be no impediment to the escape of the fluids and the foul materials. A gutta-percha sheet receives the drippings and conveys it to a vessel on the floor. He has never used carbolic acid or any drug with the water.

The editor of the *St. Louis Medical Archives*, in August, '58, treated a compound fracture of the arm, and compound comminuted fracture of the forearm, with a very satisfactory result, which was attributed mainly to *irrigation* with water slightly impregnated with liq. sod. chlorinat., sustained by an apparatus similar to Dr. Walton's. The arm was secured on an inclined plane, attached to the side of the bed, the weight of the arm furnishing the necessary extension, and the dripping conducted to a receptacle on the floor by a piece of rubber cloth. But for the antiseptic effect of the irrigation, amputation, he thinks, would have been unavoidable.

Acute Synovitis of the Knee-Joint, Treated by Carbolic Acid.—Walter Lambert, M.D., Amherstburg, Ontario, Canada (*N. Y. Medical Journal*), relates the following case of acute synovitis of the knee-joint treated by carbolic acid: A boy, aged six, of strumous habit, had had coxalgia of the right hip-joint when he was between one and two years old. When called, he was suffering from inflammation of the right knee-joint, with effusion, and also enlargement of the inguinal glands of the same side. Was suffering great pain, particularly at night. Ordered: ℞. Potassii iodidi 3 ss., potassæ bicarb. 3 j., tinct. hyoscyami 3 ij., aquæ dest. ℥ ij. Ft. sol. Capiat. cochleare minimum sextis horis; the affected joint to be painted over with tinct. iodine twice daily, and supported with a flannel roller. Ten days afterward, fluctuation was strongly marked, with considerable redness and swelling about the joint, and a tendency to point between the patella and external condyle. An opening was made about half an inch long, under the antiseptic veil (according to Dr. Lister), having first dipped the point of the lancet in a solution of carbolic acid. About two ounces of thick pus escaped; after which a paste, made with carbolic acid, boiled linseed oil, and whiting, was applied to the wound, and covered with tin-foil; the knee was bandaged with slight pressure, the leg made straight, and the lad turned upon the right side. The previous prescription was stopped, and the subjoined ordered: ℞. Ferri phosphatis 3 iss., acid. phosph. dil. 3 j., syrup. simp. ℥ ij. Ft. sol. Cap. coch. min. ter in die. The next day the patient was free from all pain. On removing the dressings, the knee was found shrunken to nearly its natural size. Some pus had escaped underneath the paste. For the next four days the paste was continued, but each day made weaker. Five days after the operation, the swelling was entirely gone, no pain even in flexion and extension of the joint; the wound was quite superficial, and nearly healed. He ordered it to be dressed with calamine ointment. There was but slight superficial excoriation eleven days after the opening, and the patient walked with perfect ease.

Dr. Lambert thought this case worth publishing, from the fact that the patient so soon recovered from so serious a disease, and that he was a subject of strumous diathesis, with a tuberculous mother, and a father whose mother had died of phthisis.

Healing Properties of Carbolic Acid.—Dr. Walter Lambert, Amherstburg, Canada (*N. Y. Med. Journal*), mentions an instance of the healing properties of carbolic acid: A patient, domestic, aged 78, applied with extensive caries of the tibia, the leg having numerous sinuses between the knee and ankle, with copious discharges therefrom, through each of which bone could be felt with a probe. The supposed cause was tertiary syphilis. Discharges from the bowels were said to be like those from the leg. Eight grains of iodide of potassium, three times daily, were ordered; and the sinuses in the leg were freely syringed out with a solution of carbolic acid, 3 ss to the pint of water. In six weeks the leg was perfectly well, and her general health had so much improved as to enable her to go about her domestic service as usual.

Use of Oxygen Gas in Phthisis Pulmonalis.—C. E. Hackley, M.D., N. Y. (*N. Y. Med. Jour.*), publishes ten cases of phthisis pulmonalis, occurring in New York Hospital, which were much benefited by the administration of oxygen gas. An apparatus was prepared for making the gas from chlorate of potash and black oxide of manganese, and a holder for storing it till it was required for use. Six of the ten patients gained, in the aggregate, 49½ lbs. It is to the change of weight that attention is especially requested.

A New Cephalotribe.—W. T. Lusk, M.D., N. Y. (*N. Y. Med. Journal*), gives us a cut of his ingenious and practical *cephalotribe*, which recombines certain features that have been tested by time, in a form which, while meeting all necessary indications, does not present the needlessly repulsive features which have hitherto constituted so powerful a bar to its adoption in this country.

The instrument, which Dr. Lusk calls new, possesses a distinct cephalic curve—2½ inches outside measure, 1½ inches between the blades. This feature is peculiar to the Prague models (Leyfert's, Breisky's), and converts the cephalotribe into an effective extractive instrument. It makes very little difference whether the divergence of the blades takes place at the extremities or at the centre, so far as regards their passage through the pelvic strait; only, in the latter case, we have a cephalotribe which is not only a good compressing instrument but a powerful tractor besides.

Another advantage of the cephalic curve is, the additional strength it imparts to the blades, which may therefore be made materially lighter, and furnished with fenestræ like ordinary forceps.

The apparatus is likewise furnished with a pelvic curve, a feature that has been objected to by some.

The Naegele-Brüninghausen lock has been chosen in preference to the English one, as being more compatible with lightness in the handles. The compression apparatus consists of the ordinary fly nut and screw, familiar through the instruments of Simpson and Blot.

The entire weight of the instrument is, according to Tiemann the manufacturer, two pounds.

Experiments with Morphia.—In toxical doses of morphia, Drs. Kanzmann and Draggendorf (Vierteljahrbr. f. Pract. Pharmacie), after many experiments, could not demonstrate its presence in the stomach after 72 hours, but found it yet after that period in the intestines. When the drug was injected subcutaneously, this was not the case. In this, as also in the introduction through the natural channels, the blood always contains considerable quantities of the poison. It was detected, in one case, twenty-five minutes after introduction of the poison. In the urine it could be found two hours after administration, and yet 85 hours after the same. Twenty-five minutes after introduction, the

liver showed considerable quantities of the poison, if this was not done subcutaneously, while its separation from the liver in a pure state proved very difficult. The brain was uniformly free from morphia, which was not affected by the usual process of decay in cadavers.

CATARACT TREATED BY PHOSPHORIZED OIL. — Dr. Tavignot (*The Pharmacist*) employed phosphorized oil successfully in six cases of cataract. He dissolves in 150 gr. of oil of almonds 0.50 gr. of phosphorus at 80° C. He uses it internally, as also for an eye-wash. It being decomposed by contact with air, it is employed in gelatine capsules, of which one forms a dose or a wash for both eyes. Coagulated albumen did not regain its transparency after digestion in the oil for two months. The action of the phosphorus in the eye seems to consist, then, in the formation of a new crystalline substance capable of replacing the old one.

NOCTURNAL ENURESIS AND INCONTINENCE OF URINE.—Frederick G. Snelling, M.D., of New York, in a clever paper on "Nocturnal Enuresis and Incontinence of Urine" (*Med. Gazette*), says that this affection is more common in girls than in boys, and with them it is desirable to ascertain the absence of all vaginal discharge, worms, or other sources of rectal or vaginal irritation. The child should be urged to exert the will during the day, and to accustom the bladder, if irritable, to the presence of urine. Opium and cantharides will greatly strengthen the resisting power of the sphincter.

When the disorder has arisen from over-distension of the bladder, there may result an affection of the nerves, or of the muscular fibre, or both, inducing paralysis of the viscus, and allowing it to fill up without the knowledge of the patient, and to dribble away drop by drop. This condition is more likely to occur later in life and from injury, than in early youth. An excellent prescription for this class of cases is the following:

℞.	Elixir Aromat. Secalis, Tr. Uva Ursi,	āā ℥ ss.
	Tr. Buchu,	℥ vj.
	Ess. Pyrolæ,	ʒ ij.
	Syrup. Zingiberis,	℥ j.

M. Half or one teaspoonful three times daily, for an adult.

In those cases dependent on atony or paralysis of the sphincter vesicæ, the sheet anchor of treatment is strychnia or nux vomica, combined with tinct. of cantharides, opium, morphine, or cannabis indica, iron, and the vegetable tonics, as for instance:

℞.	Ext. nucis vomicæ,	gr. viij.
	Oxydi ferri nigri,	ʒ j.
	Pulv. quassiæ,	ʒ j.
	Syr. absinth.,	q. s.

M. Ft. massa et in pil. xlviij. divide.
One pill to be taken three times daily.

ETHER FOR TAPE-WORM.—Dr. Lurtel (*Gaz. Med. de Paris*) uses with success the following method for expelling the tape-worm: Two-thirds of an ounce of ether is given in one dose, followed two hours afterwards by an ounce of castor-oil. The worm is discharged entire, or almost so, and always with the head intact. No pain is caused by this treatment.

CHLORAL—A NEW ANÆSTHETIC.—Dr. Geo. J. Engelmann, at present engaged in the chemical laboratory attached to Virchow's Pathological Institute, in Berlin, writes to the *St. Louis Medical and Surgical Journal*, with reference to the new and valuable anæsthetic called *Chloral*, disclosed by Dr. Liebreich, chief of the Berlin laboratory. Chloral ($C_2 Cl_3 OH$), the aldehyde of tri-chloretted acetic acid, has been known to chemists for the last thirty years, but its valuable medicinal properties have so far been overlooked. It is a colorless fluid, of penetrating odor, but almost without taste, obtained by the action of chlorine gas upon alcohol, and is thus prepared in England on a large scale, being used for the manufacture of chloroform, as solution of caustic soda decomposes it, with production of chloroform and formate of soda.

$$\left\{\begin{matrix}CCl_3\\COH\end{matrix}\right\} + \begin{matrix}H\\Na\end{matrix}\left\{O = CCl_3H + \begin{matrix}COH\\Na\end{matrix}\right\}O\Big\}$$

Upon this process, the gradual decomposition of the soluble and readily absorbed chloral in the alkaline fluids of the body—this slow production of chloroform, —probably depend its effects upon the system.

The action of chloral may be compared to that of chloroform, inhaled in small, continued doses; in some cases a slight headache followed, apparently less than is produced by morphine. Little can be said from the few cases on record, though it has been given internally with success to patients in different departments of the Charité. A solution of the hydrate in an equal quantity of water has been used—the largest quantity as yet given being four grammes. Four grammes of the solution contain two grammes (32 grains) of the hydrate, and decomposed give 113 grammes, about 21 grains of chloroform.

Upon animals the injection has been used with most satisfactory results; drowsiness comes on and soon perfect stupor. The effect is mild and gradual, not the least sign of a *stadium excitatorium*, so disagreeable in chloroform. This death-like stupor was prolonged, according to the strength of the dose, as long as eighteen hours; upon awakening, the animal appears in full possession of his faculties, and at once feeds.

This anæsthetic is applicable in cases of insomnia from general suffering, mental excitement, and even in cases of insanity, where it has already been successfully tested.

DERMATALGIA, OR NEURALGIA OF THE SKIN.—H. S. Purdon, M.D., Physician to Belfast dispensary for diseases of the skin (*Journal of Cutaneous Medicine*), in "Notes on Dermatalgia," states that this affection is often associated with hysterics, when it is observed more frequently affecting the left side of the body, as manifested by increased sensibility to touch. This complaint may also arise from exposure to draughts of cold air, rheumatism, or derangement of the uterine functions. Dermatalgia is generally limited to one spot, but in the hysterical variety, met with in females, the pain and increased sensibility to touch may be erratic, thus invading a large extent of surface.

In the variety of dermatalgia attributed to rheumatism, the affection is usually limited, in patches, which may become erythematous. The pain is often associated with vascular disturbance, such as partial congestion; and is sometimes periodic, corresponding to the distribution of a cutaneous nerve.

According to Marcé, severe and long-continued dermatalgia is one of the first symptoms of commencing myelitis.

Dr. P. has observed neuralgia of the skin confined to the hands in a case of cerebro-spinal meningitis.

In some cases the bromide of potassium is useful; and oxide of zinc, in doses of two grains, thrice daily, is occasionally beneficial, especially in the hysterical variety. To relieve the pain, and procure sleep at night, the solution of the bimeconate of morphia is an admirable preparation, and locally either belladonna, or aconite and opium liniment may be used.

COLD WATER TREATMENT OF TYPHOID FEVER.—In Vienna, cold water is almost universally employed in

the treatment of typhoid fever, with considerable success. The fever is managed according to the rules of *Bamberger*. Dr. F. Porges states that, of seventy cases so treated during the last few months, only four died; and of these four, one died of tuberculosis, and the other three from perforation of the intestines. He states that by Bamberger's treatment he has often succeeded in lowering the temperature one degree, or a degree and a half centigrade in the course of three or four hours.

The Vienna correspondent of the *British Medical Journal* describes the following case which came under his observation, treated according to this plan: The patient was a stout, strong man, about twenty-five years of age, who was supposed to be suffering from typhoid (the diagnosis was doubtful). He had some headache; the pulse was 100, weak; the temperature 40.8 deg. centigrade.

The man was stripped naked, and the bed covered by a large piece of waterproof sheeting. A tub was then brought, filled with water, in which two or three large lumps of ice were floating. A sheet was wrung out of this ice-cold water, and in it the patient was enveloped from his neck to his feet. At the end of twenty minutes this sheet was removed, and a fresh one applied; and so on every quarter of an hour for three hours. The process was commenced at six in the evening, and finished at nine. The temperature of the patient was diminished to thirty-eight deg. centigrade; and when seen the next morning, he was apparently well.

Unfortunately, however the case was pronounced to be one of "hyperæmia cerebri" and not typhoid fever; but it has been given as a sample of the treatment after Bamberger's method.

Influence of Nutriment on Disease.—The *Journal Central de Medicine de Berlin* publishes *seriatim* the conclusions arrived at by Dr. Salisbury from a large number of experiments on this subject. They are as follows:—

1.—The continuous use of vegetable aliments, particularly of the leguminous and amylaceous plants, provokes constipation and a sort of scorbutic condition.

2.—The use of amylaceous plants causes a great variety of morbid conditions; for example, fibrinous deposits and embola in the capillary vessels, and congestion, inflammation, diarrhœa and paralysis, as the result, and, at a later period, tuberculous deposits in the lungs, affections of the eyes and ears, and pains in the back and extremities.

3.—These symptoms may be advantageously met by having recourse to albuminoid aliments of animal origin, and especially by the use of salts of potash and iron, which prevent coagulation of fibrin, favor the circulation of the blood, and render active absorption and intestinal secretion.

4.—The morbid states which we have enumerated are developed in armies on the field, especially when they are subjected to an amylaceous dietary.

5.—The officers, who have the privilege of varying their diet, are free from these accidents.

6.—When the nutriment is exclusively amylaceous or saccharine, constipation soon appears, and stomachic digestion is effected with difficulty.

7.—This constipation is not slow in engendering the products of fermentation, intestinal gases, and parasites in great number.

8.—This condition continues until diarrhœa sets in, and then small colloid gelatinous masses are found in the fæces in variable quantity.

9.—These are in no respect the cause of the diarrhœa; they result from the production and metamorphosis of saccharine and fermentive matter. Once produced, these substances act as a true poison on the organism and aggravate the intestinal lesions.

10.—It is specially in the evening and during the night that the products of fermentation are developed in the intestines. Each day they increase. The continual excitement of the intestinal mucous membrane by the gases and parasites produces diarrhœa, which soon becomes chronic, and resists all methods of treatment.

11.—This state is always accompanied with a tendency to paralysis accompanied by singing in the ears and violent headache, symptoms which are attributable to defective nourishment and to the presence of fibrinous masses in the capillary vessels.

12.—There are often at this stage symptoms of bronchitis. The expectoration is thick, yellow, principally at night, and it is complicated with dyspnœa and palpitations.

13.—Diabetes and strumous affections often supervene on a diet exclusively saccharine or containing too much starch.

14.—The diarrhœa, characterized by colloid greenish stools, which attacks children during the summer, depends on the abuse of saccharine substances and fruits, and the colloid masses are derived from the intestinal epithelium.

Pomade for Lichen Agrius (*M. Hardy*).—Calomel 1 gr., tannic acid 2 or 3 gr., lard 30 gr. M. By inunction several times a day. Alkaline and vapor baths. Bitter drinks containing also bicarbonate of soda.—*Union Méd.*

Carbolic Acid as a Local Application in Syphilis and Syphilitic Warts.—Dr. Henry L. Burton, M.D., of Somerville, Tenn. (*Am. Jour. Med. Sciences*), speaks highly of the local application of crystallized carbolic acid to syphilitic chancres and syphilitic warts. Cases are cited which were cured within a few days by touching the chancres and warts twice, at intervals of three days, and lint, saturated with a solution of two grains of the acid to the ounce of water, as a constant application.

Employment of Glycerine of Tannin.—Dr. Sidney Ringe (*The Practitioner*) employs the glycerine of tannin in many diseases. It is not laid down in the United States Dispensatory, but Adolphe Wahltuch, M.D., alludes to the following formula for its preparation in the *Dictionary of Mat. Med. and Ther.*:—℞. Gallic Acid, ʒ i.; Glycerine, f ʒ iv. Rub and heat. In ozæna this combination is highly prized by Dr. Ringer. He also recommends it in the thin sanious or thicker purulent discharge from the nostrils, which sometimes occurs after measles and scarlatina; in the obstruction of the nose frequent in syphilitic children. The purulent discharge from the ears, so often met with in unhealthy children, can be stopped at once by filling up the internal meatus with this preparation. If there be acute inflammation of the meatus, this should be relieved before using the tannin.

A Mineral Useful in Tanning.—Mr. Ligbold, in St. Jago de Chile (Vierteljahrsh. f. Pharmacie) recently sent to Prof. Wittstein, a substance named *polcura*, a mineral, found 12.000 feet above the level of the sea in enormous quantities, and used there for tanning. It is a dirty, yellow, loose, crystalline powder, of an alum-like taste. Its soluble portion, amounting to 24 per cent., consists mostly of alum, lime, sulph. acid, magnesia, soda, potash, iron, chlorine, and salicic acid, which renders it practical for tanning small hides.

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THE MEDICAL FRESHMEN.

THE winter courses in the various medical colleges have now fairly commenced, and hundreds of young men have declared their intention to become physicians. These students have listened to the addresses that have been delivered in the college halls, and have no doubt been edified by the sound advice therein contained. The introductories, as a rule, are not characterized by any special originality, and this cannot be expected to be otherwise, when a simple mapping out of a plan of study is attempted. It is pretty well understood by both teachers and pupils that, no matter how much this plan for study may be varied, there is one element connected with it which is always present, and that is hard work. The pupil is made to understand this theoretically from the first and practically to the last; and if he can, during the average five months' course, attend five lectures in the day, walk the hospitals, dissect, and attend class examinations between times, he may succeed in meeting the expectations of his instructors. He may then, at the end of a two years', and at most a three years' forcing process, become a regularly graduated physician. This is the usual course taken by the majority of students, and this is one of the main reasons why the ranks of the profession are crowded by incompetent men.

Any one, to take a common-sense view of the situation, is at a loss to determine which parties are the most to blame—those who define the conditions for the doctorate, or those who accept them. To such, however, as have acquainted themselves with the attempt made during the last four years to improve the plan of the college courses, there is but one idea on the subject. It is well known that every effort has been employed to effect a change in this regard, but that, practically speaking, nothing substantial has been accomplished. This has not been owing so much to the lack of good suggestions and sound reasoning to support them, as to the hostility of the colleges to any proposed measure that conflicted with the number of their students or amount of their incomes. Indeed, this has become so apparent to such as have honestly striven to raise the standard of medical education, that many have become discouraged and ceased to speak or write upon the question. Although we are not of these, we are compelled for the present to lay aside hope, accept the result, and make the most of it. This we can do in a measure by attempting to direct the course of the student, more for his own good than for that of the college which he attends. If the institution in question fails practically to see the fallacy of the crowding system, the student is at least free to take as many partial courses as he may choose. All other things being equal, the longer his term of study the better prepared will he be to enter upon the future duties of his responsible calling. Everything that is, as a rule, the most lasting and serviceable, is slow of growth, and the study of medicine, above everything else, should not be an exception to this rule. We hold it to be impossible for the best trained mind in christendom to master even the principles of our art by an attendance upon two courses of lectures as now given. We know it has often been attempted, and that thousands of diplomas have been issued in attestation of its accomplishment; but every one who holds a medical degree from a college ever so respectable, is not necessarily a qualified physician.

If any of the students that now are, or have the intention of taking this fashionable short cut, we advise them to pause and ask themselves if the community would not in the end be benefited by the addition of a few more carpenters, machinists, or even shoemakers. If mechanics make mistakes through ignorance or unskilfulness, no one is harmed very much; but if, for the same reason, a physician commits a culpable error, how easily the grave can hide it, and the malefactor continue in his course. Those misguided youths, when they leave the college and listen to the last address, are told that they are only prepared to commence the *study* of medicine. This advice is eminently proper, but none are compelled to take it after they have a legal right to do as they please. The fact is, it comes too late. The schools know this, and yet, wilfully as it were, run the risk of consequences. They have placed themselves in the position of having no positive choice in the matter; and while we will not stop to rest the blame where it belongs, one thing is very evident—the real standing of every member of the profession is more or less affected by it.

If there is no hope for radical change or reform in our medical schools, we must turn to the medical students for help. An appeal must be made to their consciousness of right, and we must wait for the rest. We always look with concern at every new enlistment, and count upon the chances of having a fair proportion of good soldiers in the end. We anxiously look for the titles of A.B. and A.M. on the catalogues, and are glad if ten per cent. of the whole are thus blessed; we study their faces, their manners, and rejoice in the belief that the number of gentlemen proper is on the increase; that they are inclined as a whole to be hard-working young

men; and as practical individuals and co-workersin a laborious profession we care more for these elements in the educational scheme than the abstract reputation of this or that school, or the absolute number of students in attendance.

It should be the endeavor of every practitioner on his own behalf to raise the standard of medical studentship still more by encouraging every worthy young man to enter our ranks, and discouraging those who, by previous education, and by pressure for time, are eminently unfit. It devolves entirely upon individuals to do this, as they can rest assured that no one with a matriculation fee in his pocket is turned away by our colleges. After the student of medicine is fairly matriculated, the profession is not so much concerned as to the particular school he may attend as to the number of years he can give to such attendance. No young man who wishes to learn his profession even decently well, will think of giving less time than three years to his attendance upon lectures, and if he is gifted with more than ordinary foresight, he will allot to himself four. Such a determination would give him abundance of opportunity for partial courses during the first and second years, and reserve for him a reasonable time for dissection and hospital attendance. Let us trust that the majority of our students are not in a hurry to become doctors; that they have not only determined to work, but allotted sufficient time to themselves in which to do it.

It is with regret that we are obliged to name any particular journal which is getting in the habit of copying prominent original articles from the Record into its own columns without giving proper credit; but in the September number of the *Chicago Druggists' Price Current and Chemical Repository*, an article on "Malt Liquors and their Therapeutical Action," by Bradford S. Thompson, M.D., was copied entire without *hinting* even that it was first published in our journal. Short articles or abstracts may occasionally creep into any periodical through inadvertence, without naming the source, but one of the length alluded to could hardly escape the notice of our contemporary when revising his proof-sheets.

Names Stricken from the Roll of the Rensselaer Medical Society, N. Y.—At the last quarterly meeting of this Society, held July 13, 1869, at Troy, N. Y., the following resolution was introduced and passed: *Resolved*, That the Secretary be instructed to drop from the list of members the names of all persons who have not attended the meetings of the Society, and are in arrears, for the last *five years*. *Twelve* names were accordingly read off by Dr. Le Roy McLean, the treasurer, and dropped. It would be well for some of our medical societies to follow this example.

College of Physicians and Surgeons.—Dr. Edmund R. Peaslee will deliver four Lectures upon Ovario omy at this institution during the month of November. The first lecture will be given on Friday, November 5th, at four o'clock. The Profession are invited to attend.

Reviews and Notices of Books.

A Text-Book of Practical Medicine, with particular reference to Physiology and Pathological Anatomy. By Dr. Felix von Niemeyer, Prof. of Pathology and Therapeutics, Director of the Medical Clinic of the University of Tübingen. Translated from the Seventh German Edition, by special permission of the Author, by George H. Humphreys, M.D., one of the Physicians to the Bureau of Medical and Surgical Relief at Bellevue Hospital for the Out-door Poor; and Charles E. Hackley, M.D., one of the Physicians to the New York Hospital, one of the Surgeons to the New York Eye and Ear Infirmary, etc. New York: D. Appleton & Co. 1869. 2 vols. 8vo., pp. 731 and 770.

The literature of general medicine has lately been very much enriched by several standard treatises, among which we may mention those of Reynolds, Aitken, Wood, and Flint. Each of these has its own excellences, and each author has his own special set of admirers. At a time when the market, so to speak, is flooded with first-rate works, the translators of Prof. Niemeyer's book have a sufficient confidence in its intrinsic value to present it as still another candidate for favor. This confidence, we are sure, is well founded. The learned professor has prefaced the appearance of his work in this country by a very enviable reputation, and he must of necessity command the attention of an appreciative and thinking audience. Whatever exalted opinion our countrymen may have of his talents of observation and his practical good sense, his text-book will not disappoint them, while those who are so unfortunate as to know him only by name have in store a rich treat. We speak from what we know, and are willing to give the reason for the faith within us.

As indicated by its title, it has a wider scope than most works on the practice of medicine proper, the special aim of the author being to establish a rational relationship between pathology and therapeutics. Taking the proper ground that the treatment of disease is after all the foundation of everything valuable in our art, he has made special efforts to give it a deserved prominence. It is needless for us to say that, having fulfilled the indications in this respect, it is eminently practical throughout. Again, in order to cover all the necessary ground, he is careful to treat of every subject great and small, the plan being to take each apparatus by itself, and follow it from commencement to the end with a thoroughness that is in the highest degree commendable. For instance, in the digestive tract, falling of the palate and follicular faucitis receive as much proportionate attention as dysentery and cholera asiatica. Besides this, many subjects, not, strictly speaking, belonging to practical medicine, are discussed in a peculiarly terse and characteristic manner, giving the outlines as it were in a nutshell, and preparing the student with the requisite solid foundation for more elaborate studies.

It would be doing a great injustice to the distinguished professor to say that he is not possessed of a great deal of originality. This is particularly manifest in his pathology of phthisis, which, by the way, has given him the greater part of his reputation. His views in regard to the etiology of the disease, which are very elaborately set forth in Vol. I., have been very generally adopted by the advanced pathologists in this country, and will bear a very close comparison with theories advanced by Laennec and his followers. The catarrhal origin of the disease which is claimed by him to be so general will be found to relieve a great deal of doubt heretofore existing in the professional mind, a doubt that was

founded on facts *versus* theory. On this particular point he says: "I regard the widespread doctrine that consumption is solely dependent upon a diathesis from which it proceeds independently of all so-called 'exciting causes,' as equally gratuitous and dangerous. The circumstance that the admission of the origin of this disease from external irritation stood in direct conflict with a theory which no one dared to gainsay, has manifestly prevented an unbiassed interpretation of facts. The deliberate assertions of Laennec and his pupils, that 'catching cold' and other irritations had no influence in producing pulmonary consumption, and that it never arose from a neglected catarrh, has had the most pernicious effect, both upon prophylaxis and treatment of disease; and it is fortunate that the laity, when they suspect a tendency to consumption, are more cautious than would be necessary if what is almost always taught in the lecture-rooms were true." This certainly appears like a very bold assertion, but our author is one whose patient observations entitle him to make it. He maintains, as the result also of careful investigation, that the majority of cases of consumption are *not* the result of neoplasm, but of inflammation, and that when tubercles exist in phthisical lungs, the tuberculosis is almost always *preceded* by a pneumonic process which by caseous degeneration of its products has prepared the soil for the growth of tubercle. This condition of things certainly explains the frequent concomitance of so-called tuberculosis with severe cases of measles, whooping-cough, and kindred affections in which the mucous membranes of the lungs become primarily involved. The reader must not be made to understand that pulmonary consumption is not inherited, but that it is not always inherited. In the course of a very full discussion of the whole subject, he alludes to the relations which scrofula naturally holds to phthisis, and very sensibly claims that the former is the natural parent of the latter. He explains it in this way: scrofulous persons have a predisposition to glandular enlargements by cellular hyperplasia, constantly combined with which is a general tendency to disease, particularly that of an inflammatory nature. The obstinacy and long continuance of such processes are proverbial, and the mucous membrane is by no means exempt from the invasion. It is easily seen how, by the continuance of the pneumonic process, the tuberculous disease proper can be invited. The anatomical characters of the different lung troubles, which are brought by our author under the general head of phthisis, occupy a well-merited amount of space, and the descriptions, gross and microscopical, are minute, explicit, and intelligible to every frequenter of the post-mortem room. Our author, very naturally, in speaking of the prophylaxis of phthisis, points out the significance of bronchial catarrh in delicate persons, and urges that the ordinary "colds" should not be neglected. As to treatment proper, our writer does not radically differ from our other authorities. The accompanying fever is with him of most importance. For this, when, as usual, it is rebellious, he uses a pill (Heim's) composed of opium, ipecac, digitalis. To this, according or not to indications as to the periodicity of the fever, quinine is added. A strong believer in the milk treatment, he does not pin his entire faith upon any miraculous effects which cod-liver oil may be said to possess.

We cannot, however, be expected to particularize the views of the distinguished teacher upon the different diseases that occupy two large-sized octavo volumes. This would be impossible even in twice the space which must be allotted to this notice. We must leave it with the reiteration of our general and unqualified commendation. The translation by Drs. Humphrey and Hackley is admirably rendered in superb English. The typographical execution of the work is very creditable, but we are sorry to say that the binding is very frail, besides being very common.

THE HISTORY AND PHILOSOPHY OF MARRIAGE; OR, POLYGAMY AND MONOGAMY COMPARED: By a Christian Philanthropist. Boston. James Campbell. 1868. 18mo., pp. 253.

THE little work before us has been written for the purpose of proving that many wives are better than one. The author, who glories in the name of a Christian philanthropist, has the requisite boldness of a sensational writer, and that is all. When custom has so thoroughly sanctioned the having of one wife, any one must be bold indeed who attempts, in a little tract of two hundred and fifty pages, to prove that civilization is wrong, and that he is right. Nothing but his Christian philanthropy would tempt him to do so, when he can offer no better arguments for his position than are contained in the book. Every one who reads the first few pages, wherein the author gives an account of himself, and asks that judgment be suspended until he shall prove, as he is confident he can do, that he is right, will be disappointed when the last page is reached.

It is asserted by the writer that while the Old Testament recommends a man to have more than one wife, the New Testament does not forbid it; consequently it is not wrong to have more than one wife (living). Adam and Eve wore only fig-leaves to cover their nakedness; the New Testament does not forbid us to do the same; therefore, all men and women should wear fig-leaves. The licentiousness of the ancients is charged altogether upon monogamy, and for the purpose of making out a case the exploits of the most notorious libertines are detailed. We have failed, however, to see why monogamy should cause this state of things any more than polygamy. On the contrary, the sanctity with which monogamy is regarded by society in general places the most effectual barrier against promiscuous intercourse, while the looseness of the polygamic system allows on the face of it a free and comparatively unrestrained indulgence. If our author were able to prove that the majority of monogamists are unfaithful to their marriage vow, then there would be an excuse for detail of the outrages perpetrated by the Cæsars. The superabundance of women is another argument offered for polygamy. We are told that the majority of women remain unmarried because there are not enough males to mate them. This we contend has no positive force until all the marriageable bachelors are disposed of. We are told that the female desires matrimony because she wishes for independence; hence she would gladly resort to polygamy if there was no chance to become a monogamic wife. We are told that polygamy is not apt to create jealousy, that it is a divine institution, that every one who has the interests of the sex at heart, and who can afford the luxury, should have two or more wives, and become a centre of a Christianizing influence. We are also informed that if the majority of men were polygamists, uterine disease would be on the decrease, miscarriages, abortions, prostitution and crime in almost all shapes would be prevented.

If our author can convert the people to his doctrines, what a blessed time is coming. We imagine, however, that he will have rather hard work of it if he cannot preach a better sermon. In order to support his text he should strive to prove that marriage is nothing more than a purely animal relation, and that the highest ambition of the male should be to emulate the propensities of the rooster, the ram, and the jackass. Until he can do this he had better occupy his thoughts with something else.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

ANNIVERSARY MEETING, OCTOBER 4, 1869.

DR. GEO. T. ELLIOT, JR., President, in the Chair.

THE sixty-fourth anniversary meeting of this Society was held as above.

The President announced the admission to membership of Drs. A. Clark Corson, Geo. H. Butler, Meredith Clymer, Woolsey Johnson, Stephen J. Clark, Edward C. Harwood, Chas. S. Wood, and Frederick E. Hutchinson.

The minutes of the Comitia Minora for the past year were read.

The Report of the Library Committee was presented by its chairman, Dr. Brush.

The attendance being very small, owing to the attractions of Dr. McLane's Introductory Address in the hall below, the meeting adjourned to October 18th.

ADJOURNED ANNIVERSARY MEETING, OCTOBER 18, 1869.

DR. GEO. T. ELLIOT, JR., President, in the Chair.

The Treasurer, DR. BIBBINS, presented his Report, which was accepted.

THE CASE OF DR. SCHOEPPE.

At the meeting of September 6, 1869, had been presented a communication from Dr. Schoeppe, bearing date July 3d, asking the opinion of the Society as to the justice of a conviction for murder upon the evidence presented at his trial, or rather, in a hypothetical case made up from that evidence; and a committee, consisting of Drs. W. B. Lewis, E. Noeggerath, and A. Flint, Jr., had been appointed, with instructions to investigate the subject, and respond to the communication in the name of the Society.

DR. LEWIS, as chairman of this committee, now reported that the instructions had been promptly complied with; that a statement of opinion had been forwarded to Dr. Schoeppe, and acknowledged in a letter from him, dated September 14th. This letter was read, as also the Report, as follows:

Statement of a Committee of the Medical Society of the County of New York, in relation to a "Hypothetical Case," presented by Dr. Schoeppe, and based upon the testimony of the witnesses during his trial.

The papers forwarded by Dr. Schoeppe were presented at the stated meeting, September 6, 1869, the earliest moment practicable after their arrival, and referred to a committee of three, with power. The following is the result of their deliberations:

Abstract of the Evidence.—The only evidence in relation to the matter examined by the Committee is found in four octavo pages of printed matter, entitled, "Hypothetical Case based upon testimony of the Witnesses," and "Chemical Analysis based upon the testimony of the Witnesses." It is therein shown that a woman sixty-five years of age, a frequent sufferer from vertigo, complained of illness thirty-three hours before her death. She was probably nauseated, since an active emetic was taken, which produced its legitimate result about thirty-one hours before death. Eight hours after this, or twenty-three hours before death, she became semi-comatose; coma was pronounced in about three hours more; and twelve hours before death paralysis of the right side of the face and tongue had supervened. Paralysis of the entire right side of the body is rendered highly probable by the position in bed, and the warmth and moisture of the right side, as contrasted with the coldness and absence of perspiration on the left. Both pupils were contracted. The patient remained in this condition until her death. The positive symptoms were these: Old age, vertigo, "indisposition," vomiting, semi-coma merging into coma, paralysis of right side of face, difference in temperature of two sides of body, and contraction of pupils.

That feature in this train of symptoms which must at once attract attention is the paralysis. Exclude this from the evidence, and the remaining signs would indicate either uræmic or narcotic poisoning. But with paralysis of *one side* of the body present, even more strongly than if it existed on both sides, poisoning by any medicinal agent is at once imperatively excluded. No drug, or combination of drugs, is capable of destroying the nervous power of a portion of the body situated at one side of the median line, while this power is retained by the corresponding part on the other side.

And yet this is precisely the condition, which lay witnesses have shown, obtained in the case above quoted. The right side of the face lost its nervous stimulus, and became incapable of resisting the normal power of the opposite muscles. These, therefore, dragged the mouth and nose toward the left. The tongue was in a similar condition. It is not necessary to refer to the remainder of the body, for though it is probable that hemiplegia existed, it would not strengthen our position were the proof complete.

That the symptoms were due to blood poisoning consequent upon kidney disease is possible, but not probable, since death from uræmia is commonly ushered in by convulsions. We have a much more likely cause in either softening or sanguineous apoplexy in the brain. The former is a recognized cause of all the symptoms in this case, and upon inspection the diseased organ may yield no other evidence of the change than a reduction of the normal firmness of the parts.

This brings us naturally to the autopsy, which was conducted in a deplorably negligent and unscientific manner. The examination of the brain revealed an absence of effused blood in the substance of the organ, and also from its superficial parts, unless the "large amount of blood in the cranium, the origin of which the examining physician could not tell," were clotted. This, however, is unlikely, both from the fluidity of the blood in other parts, and the fact that apoplexy was not therefrom suspected. A portion of the brain near the fourth ventricle was found to be softened, but twelve days after death, even in winter, a slight degree at least of such change might be expected. We therefore attach very little importance to this discovery. The arteries of this organ should have been carefully traced, since a coagulum forming suddenly in one or more of them would be likely to produce very sudden death with vertigo, nausea, paralysis, and coma. The softened part should have been submitted to microscopical investigation. The heart should have been scrutinized with utmost care as to the condition of its valves and its size; and the arteries with regard to their coats; especially in the kidneys of so aged a person should have been sought some explanation of the phenomena. All of these points were omitted, and we have the single item of positive intelligence, of questionable value, that softening existed.

To return—cerebral apoplexy is probably excluded, and we are brought to the conclusion that white soft-

ening or partial anæmia of the brain was the cause of death. With regard to the post-mortem appearances in this affection we may quote from one of the highest authorities in matters of this nature, Professor Niemeyer, who states that "Partial anæmia of the brain cannot by any means always be definitely made out in the dead body. * * * * * * On account of the difficulty of deciding whether a portion of brain has been anæmic during life, we should make it a rule to seek most carefully for any obstruction of the cerebral arteries, particularly of the arteria fossæ Sylvii, in any cases where the patient has died from a chronic brain disease, or an acute one beginning with a sudden occurrence of hemiplegia, unless the autopsy gives some other satisfactory explanation of the symptoms. Before attention was called to the occurrence of this anomaly, autopsy, in cases of severe brain disease with hemiplegia, often furnished nothing satisfactory."*

The same author quotes Bamberger with deference, as expressing the opinion that it is well nigh impossible, in cases of sudden death preceded by hemiplegia and coma, to predict whether sanguineous apoplexy or partial anæmia would be discovered upon examining the brain.

As may be inferred from the first quotation, white softening of the brain is due to the more or less rapid plugging of cerebral arteries by clots of blood or fibrin, which thus cut off the vascular supply, and produce death (necrosis) of the brain tissue to an extent commensurate with the distribution of the artery or arteries involved. This may be caused by a diseased condition of the walls of the vessels of the brain, or by a plug coming from the heart or lungs.

The prominent symptoms which announce this condition are vertigo, which may have existed for many months, nausea, and finally, paralysis, coma, and death.

It is therefore our opinion, that the patient died from natural causes; judging exclusively from the "Hypothetical Case" presented to us.

Wm. B. Lewis, M.D.,
Emil Noeggerath, M.D.,
A. Flint, Jr., M.D.

Voted that the above Report be accepted and placed on file.

Voted that the thanks of the Society be presented to the Trustees of the College of Physicians and Surgeons for the use of their room during the past year.

ELECTION OF OFFICERS.

The following officers were elected for the ensuing year:

President, Dr. Geo. T. Elliot, Jr.; *Vice-President*, Dr. T. G. Thomas; *Recording Secretary*, Dr. A. E. M. Purdy; *Corresponding Secretary*, Dr. B. Howard; *Treasurer*, Dr. Wm. B. Bibbins; *Censors*, Drs. A. Jacobi, T. C. Finnell, E. Eliot, J. C. Peters, and E. B. Warner; *Delegate to State Society*, for one year, to fill vacancy, Dr. Wm. R. Whitehead.

Several Amendments to the By-Laws, proposed by Dr. E. Eliot at the last meeting, were now adopted.

FEMORAL ANEURISM CURED BY FLEXION.

Dr. Gurdon Buck presented before the Society a patient cured of femoral aneurism in the groin, and read a report of the case, the main points of which are, briefly, these:

Edward W——, 30 years, Irish, admitted to New York Hospital June 24, 1867, had for five months previous suffered burning pain in the right groin, and about two weeks before admission had first noticed a pulsating tumor in that situation. Examination revealed an aneurismal tumor the size of half a hen's egg, over the femoral artery, just below Poupart's ligament. After some weeks of intermittent digital compression, an apparatus devised by Dr. C. M. Bell for compression of the iliac was applied, on 16th July, so as to arrest circulation through the sac. At the end of forty-eight hours the pressure was relaxed, and the next day it was removed completely, all pulsation in the tumor having ceased. The apparatus was not again required; and when some ulcers caused by its chafing had healed, the patient was, Sept. 12, 1867, discharged cured. The tumor was reduced to the size of a marble; there was no pulsation in the posterior tibial; and the limb was almost as useful as ever.

January 14, 1869, the patient was readmitted with a relapse of the aneurism, the first signs of which he had noted about eight weeks before. It presented nearly all its original features; but pulsation in the tumor was not affected by compression of the iliac, in which no pulse could be felt, while it was arrested by deep pressure upon the femoral immediately below, and also by extreme flexion of the thigh upon the trunk. The treatment by flexion was at once instituted, and within a week a marked improvement was manifest, which progressed until February 1st, when the flexion was discontinued. Feb. 4th, the patient was out of bed; on the 6th he was walking about; and on the 17th he was again discharged, the tumor, then small and firm, having given evidence of progressive consolidation. Sept. 10th, the tumor, no longer visible, had shrunk to a flat hard mass, and all abnormal sound had disappeared.

Dr. Buck reviewed the history of treatment by flexion, from its introduction by Maunoir, of Geneva, in 1858. The present case was the first on record of its application to femoral aneurism. Its modus operandi was partly by direct compression of the aneurismal tumor, but chiefly by indirect compression of the artery on the cardiac side, through the medium of the tumor. Though restricted in its application to aneurisms occurring in the flexures of the joints, it was still a most valuable addition to our therapeutical resources; and, being free from the dangers attendant upon other methods, it should, wherever applicable, claim the first trial. In the course of his researches upon the subject, he had found a case reported (of popliteal aneurism) in which flexion of the limb was maintained by a suspension-apparatus that allowed the patient to keep out of bed during the treatment.

Dr. Jacobi called attention to a recent paper upon the stoppage of hæmorrhages by flexion of the limbs.

Dr. Salvatore Caro.—I regret, Mr. President, that I cannot present the documents that would establish the priority of the treatment by flexion in favor of my old professor, Dr. Giovanni Gorgone, of the Civic Hospital at Palermo. In 1846-8 this was his customary method of treatment in all aneurisms where it was applicable. In 1847 occurred a case which I well remember, as I was then House Surgeon at the Civic Hospital. A young man, a tailor, having a headache, had gone to a professional phlebotomist to be bled. Instead of opening a vein at the elbow, the operator opened the artery; and, not knowing what else to do, he strongly flexed the limb, and tightly bandaging it, sent the patient to hospital. An aneurismal tumor was found about the size of a large walnut. The pulsation in it was entirely stopped by forcible flexion of the forearm. This treatment was adopted, and the patient was completely cured. On the 24th of January, 1848, after the capture of the palace of King Bomba, this hospital was destroyed by fire, together with all its records; and for this reason I am unable to give documentary

* Niemeyer: Practice of Medicine. Vol. II., p. 179. New York. 1869.

evidence upon this matter. But to my personal knowledge the treatment by flexion goes as far back as 1847.

To be continued.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

(Abstract of last season concluded.)

[This summary has extended to such unexpected length, that we have space only to record the subjects of the remaining papers and discussions.]

Stated Reunions.

May 7, 1869.—Dr. J. Lewis Smith: remarks upon *Rickets*. Discussion by Drs. Post, Neftel, and I. E. Taylor.

May 14 and 21.—Dr. Wm. B. Lewis: remarks upon *The Pathology of Bright's Disease*, with microscopic demonstrations. (The substance of these remarks in *Med. Gazette*, Sept. 25, 1869, *et seq.*). Discussion by Drs. Noyes, Knapp, and Neftel.

Dr. Post presented a case of deformity of hand from a burn.

May 28.—Dr. Garrish: paper upon *Hydrophobia*.

June 4.—Dr. L. Weber: paper on *The Therapeutics of Bright's Disease*.

June 11.—Dr. J. C. Peters: remarks upon *The Homes of Cholera*, profusely illustrated by maps, plates, etc.

June 18.—Dr. I. E. Taylor: remarks upon *Mento-posterior positions of the Face*.

June 25.—Dr. A. L Carroll: remarks upon *Hygiene in its Relation to Therapeutics*.

Stated Reunion, Oct. 8, 1869.

Dr. S. T. Hubbard, First Vice-President, in the Chair.

ELECTRICITY IN DIAGNOSIS.

Dr. A. D. Rockwell read a paper upon *Electrization as a Means of Diagnosis*.

The employment of electricity for diagnosis is doubtless as old as its use in therapeutics, going back to the middle of the last century: but it was blindly employed, and no results of value were obtained until a recent period. Its diagnostic value depends upon two facts: 1. All parts of the body are more or less sensitive to the electric current, and this sensitiveness is modified by disease. 2. Muscular contractility under the influence of the current (electro-muscular contractility) is more or less modified by disease.

1. Electricity acts as an irritant. If the current be passed through an acutely inflamed portion of the skin, it produces more pain than if passed through a sound portion. The same is true of the deeper organs. But in an atrophic or other anæsthetic condition of an organ, the sensibility to the current will be diminished. These modifications of sensitiveness can do little more than call our attention to an organ as the seat of disease, whose character must be otherwise determined.

2. The contractile power of a muscle is made up of two factors,—the excitability of the intra-muscular nerve-fibres, and that of the muscular substance itself. The galvanic current affects chiefly the first, the faradic, the second. Abnormities may occur in either. Certain relations of electro-muscular contractility to disease have been established. In motor paralysis this contractility is sometimes normal, occasionally increased, very frequently diminished. It is commonly increased in irritative disease of the brain, and hysteria; occasionally also in locomotor ataxia. It is commonly diminished in most severe affections of the cord, in paralysis from rheumatism, lead poisoning, or pressure upon a nerve, and in progressive muscular atrophy. In some diseases of the brain and cord, it varies from diminution to increase, and *vice versâ*, and these variations in a case of paralysis prove it of central origin. In some paralytic affections the muscles react very differently under the faradic and under the galvanic current, and this difference may become modified or reversed during convalescence. In hyperæsthesia of the cord, dependent on inflammation or intense congestion, the application of the current to one part of the body, *e.g.* an extremity, may produce reflex sensations in the corresponding part of the other side, or in various parts at once; crossed reflex muscular contractions may be similarly produced. These effects rarely, if ever, occur in a healthy condition of the cord and its membranes. Benedikt says they denote lesion of the pons.

Dr. Neftel.—There is no doubt, Mr. President, that the information given by the examination with the electric current is very often quite indispensable for a correct diagnosis. It is really astonishing that in some medical clinics the only physical examination made is frequently that of auscultation and percussion—as if the lungs, heart, and liver, were more important than the nervous organs. I might bring before you many cases where the diagnosis was made solely or chiefly by means of the electrical examination, but will mention only three, which are now under my care.

A patient was sent me about a week ago, suffering as was thought from lead-poisoning. In the house where the patient had been living for twenty years the drinking water came through lead pipes, and was proved, by chemical analysis, to contain lead; but treatment for lead-poisoning had been employed without benefit, and I could find no symptoms of that affection. The extensors were no more affected than the flexors, which is not often the case. The electro-muscular contractility was increased in the affected lower extremities, and this latter alone was sufficient to exclude lead-poisoning, in which the electro-muscular contractility is always diminished, and may be abolished. Examining the patient further, I found a high degree of anæsthesia in the lower extremities, and although the single muscles contracted well, yet the faculty of co-ordinating the movements of the lower extremities was impaired. Finally, the so-called phenomenon of Romberg was well marked: on closing the eyes the patient would fall. I therefore made the diagnosis of locomotor ataxia, although the history of the case was that of lead-poisoning.

Another case is a gentleman who had been treated by Duchenne, Brown-Séquard, and others abroad. He presents quite a healthy appearance, and has been pronounced by several physicians a hypochondriac. On applying the anode of a continuous current to the superior cervical ganglion of the sympathetic, and the cathode below the fifth vertebra on the opposite side, violent diplegic contractions were called forth, which phenomenon, according to Remak, is characteristic of some diseases of the spinal cord. In the urine I found a considerable number of spermatozoa. This gentleman is very probably suffering from incipient locomotor ataxia.

The third case which I will name is that of a lady who had been afflicted for several years with deafness and noises in the ears, severe headache, dizziness, and

general prostration. Examining the auditory organ with the galvanic current, I found that the reaction of the acoustic nerve was abnormal. Instead of reacting at the beginning of Catelectrotonus and at the disappearance of Anelectrotonus, it gave just the reverse formula, and that with a very weak current. I concluded that she was laboring under hyperæsthesia of the acoustic nerve with a reversed reaction to the galvanic current. Under treatment by the same means which had established the diagnosis, she has now nearly recovered.

Dr. Sayre took exception to the last speaker's remark, that lead-palsy affects chiefly the extensors. True, the chief manifestation of the paralysis was in the extensors of the upper extremity; but there was no doubt whatever that all the other muscles of the body were affected equally with these. The poisoning was universal; and the characteristic deformity of wrist-drop was due simply to the fact that the extensors of the hand were normally weak muscles, having little to do, while the flexors opposing them were very powerful. He had seen within a year past some ten or twelve cases of lead-poisoning from the use of cosmetics, and in every one of them the lower extremities are as much affected as the upper. The fact was not so patent to a casual glance, but a careful eye or ear would at once detect it in the patient's walk.

Dr. Whitehead had lately published a case where the chief muscles paralyzed appeared to be the interossei of the hand, an illustration of a paper upon the physiological action of these muscles. (*New York Med. Jour.* Oct. 1869.) The inability to extend the second and third phalanges of the fingers was a marked symptom, even in the early stages of lead-poisoning, and was due to paralysis of the interossei; while to their consequent atrophy were due the extraordinary depressions between the metacarpals, sometimes so great that the finger could readily be laid in them. In explanation of these points, the doctor read extracts from the article referred to.

Dr. Sayre found in Dr. Whitehead's remarks a strong corroboration of the principle he had just stated. The interossei were muscles weaker than the extensors of the hand and had less to do, their only office being to extend the phalanges. It was owing to this fact alone that they gave the earliest indications of lead paralysis. The recognition of this principle was most important, as guiding to the correct treatment. The indispensable element in the treatment was frequent passive movement of the weaker and less used muscles. This had been taught here years ago by old Dr. Batchelder. Only insure exercise, and the muscles would regain their power sooner than by all other means combined, though of course these should not be neglected. The patients have to walk about, and so the legs do not give out, do not show so prominently the effect of the poison. So with the other muscles called into constant use. What better index of the proper treatment! In the extreme atrophy of the interossei, making the hands look like those of a skeleton in tight gloves, the speaker had gained happy results by the use of an apparatus, made for him by Dr. Hudson, which, by slight elastic extension, kept the fingers open except when voluntarily closed by the patient. With such an apparatus, and piano practice, the atrophied muscles could hardly fail to become developed. In connection with the passive exercise, he made constant use of electricity. The poison itself must of course be got rid of chemically; in some of his cases Dr. Doremus had obtained metallic lead from the urine.

Dr. Burrall presented for examination a patient with ulceration and scirrhus of the mamma, healed during treatment. This case was more elaborately related before the County Society, October 18th; and the discussion on this occasion will be incorporated in our report of that meeting.

Dr. Knapp called attention to an extraordinary case recently reported. In the removal of the uterus and both ovaries, one of the ureters was cut, and a urinary fistula resulted. The corresponding kidney was extirpated, and the patient did well.

Dr. Elsberg showed a little instrument, like the commencement of a double cork-screw, intended for fixing the eyeball in operations, but long discarded. He had found it most useful for removing an impacted piece of wadding from the ear, which had been carried for two or three weeks, and had resisted the efforts of several surgeons.

Dr. Joel Foster had seen a cherry-pit very nicely removed with a scoop so shaped as to allow it to pass around the foreign body.

Dr. Hanbury Smith had been accustomed to employ for this purpose a small probe, with a jointed extremity turned by a screw in the handle. The probe was passed beyond the foreign body, the end turned down, and then withdrawn.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, September 16, 1869.

Dr. H. D. Bulkley, President, in the Chair.

MINERAL WATERS AS THERAPEUTIC AGENTS.

Dr. Hanbury Smith read a paper on mineral waters as therapeutic agents. After defining mineral waters as "more or less dilute aqueous solutions, flowing from natural springs, or reached by excavation or boring, and possessed of undeniable medicinal powers," he directed attention to the important part played by the temperature and volume of the solvent water, not forgetting the therapeutic value of the only important gaseous impregnations—carbonic acid and sulphuretted hydrogen. From want of time to treat of them, the so-called alum, bitter, and ferruginous waters were passed over, and might, perhaps, with propriety be regarded as convenient and varied forms of astringents, laxatives, and tonics, forming a transition series between ordinary medicines and the mineral waters proper. The minerals present in these were next described, and it was shown that all the important ones are exactly those "either forming integral parts of our bodies, or whose presence is absolutely necessary to the accomplishment of the vital processes," certainly a most remarkable coincidence.

Dr. S. then considered the *chlor-sodic* or common-salt waters, always of complex character, each containing from 10 to 15 different ingredients. All these waters are tonic and stimulant, and in larger doses aperient. "They give activity to the cutaneous, intestinal, and urinary functions, developing appetite, and demanding a substantial diet during their use. Most remarkably do they stimulate the abdominal circulation, provoking hemorrhoidal and menstrual discharges—sometimes to excess. They are also powerfully alterative."

The *sulph-sodic* or Glauber-salt waters are much less common than the chlor-sodic; and even in the strongest, the proportion of the naming ingredient is small compared to that of the common salt in the other. Glauber-salt, formerly much used as a purgative, extracts a much larger amount of water from the blood

than the chloride does, and is mainly discharged with the fæces, but little in the urine. It is commonly accompanied by carbonate of soda, with much free carbonic acid, iron, chloride of sodium, etc., the two latter counteracting the tendency to debilitate by depletion.

During the employment of these waters, the urine is increased in quantity and rendered alkaline, the appetite improves, digestion is promoted, and the blood depurated and renewed with healthy materials. The weaker waters, and an allied class, where sulphate of lime replaces the sodic salt, are sedative, alterative, and anti-spasmodic.

The *alkaline sodic waters*, rich in carbonate of soda, are well represented by the so popular Vichy. In addition to the soda are found small proportions of the carbonate of potassa, magnesia, and lime, sulphate and phosphate of soda, and chloride of sodium.

"Rendering the blood more alkaline, doubtless more fluid, and thereby enabling it to circulate with greater ease, the two plastic elements most concerned in chronic engorgements and tumefactions—albumen and fibrin—we may conceive to feel the liquefying influence."

Alkaline chlor-sodic waters, like those of Ems, more feebly mineralized than Vichy and waters similar to that, are particularly adapted to the treatment of disorders depending on catarrhal antecedents, neuralgic and spasmodic cases, and such, as requiring alkaline treatment, are accompanied with anæmia.

Sulphur waters are divided into sodic and calcic. The former, quite frequently devoid of the smell of free sulphuretted hydrogen at the source, are more powerfully remedial than the mal-odorous calcic waters, quite contrary to popular notions on the subject. Cutaneous, rheumatic neuralgia, and catarrhal disorders are those most commonly treated by sulphur waters, though these require more care in their employment than any others, being dangerously stimulant.

Dr. S. remarked that it is not to be forgotten that, however arranged, all classes of mineral waters interlace in every possible way, the one passing into the other by insensible degrees.

The analysis of any water does not tell us, with any approach to accuracy, what is likely to be its specific action. Reliable empiric observation is the main source of all our information on the subject.

While active hydro-mineral treatment is contra-indicated in acute disorders, heart affections, cancer, and malignant organic diseases, etc., etc., it may yet be employed in "a carefully graduated and discriminating manner to ameliorate symptoms supervening upon the principal disease, or even more or less intimately connected with it."

The constitutional tendency to a given disease, and the diatheses, where the disease is present, but in abeyance, are the great fields for the internal use of mineral waters. As might be expected, however, of such alterative medicines, the effects are sometimes developed with extreme slowness, sometimes exacerbating, or even causing the chronic disease to put on an acute form. If the disease is recurrent, the rule is to commence treatment at the middle period of the best health.

After a full elucidation of the above, and other practical points, the treatment of chronic, and especially the diathesic diseases, received as much attention as the occasion would admit of.

In answer to a question concerning the properties of the Missisquoi water, Dr. Smith replied that the only peculiarity he had been able to discover was its remarkable purity, and that such had been the experience of other chemists, all having failed to detect in this water any earthy or mineral salts. He then expressed a wish that any of the gentlemen present would report cases of disease that have, under their observation, been relieved or cured by the use of mineral waters.

Dr. Farnham mentioned the Caledonia Mineral Spring, in Wheelock, Vermont. He had visited the spring in August last, and remained there about two weeks, and had seen very marked effects follow the use of the water. A very severe case of eczema aurium, which had been of two months' duration, and was in an actively inflamed state, yielded entirely, in about ten days, to the use of the water, internally and locally. Several other cases of obstinate skin diseases came under his observation, and were much benefited in a short time, as were other disorders, and Dr. F. considered the spring a very valuable one. The water is a pleasant mineral water, with a sulphurous odor, and of a boiled egg flavor, not at all disagreeable, and not followed by regurgitations of sulphuretted hydrogen. It has a very marked diuretic effect upon the visitor, though it is drunk freely by the inhabitants of the village in which it is located, and which is remarkable for its healthfulness, and its small death-rate.

Dr. Garrish called attention to the Massena Springs, in St. Lawrence Co. He had seen there a number of persons who were said by their physician to have Bright's disease, and who were relieved by the use of this water, and that bathing afforded relief to patients suffering with rheumatism.

Dr. Smith said that this was a moderate sulphur water, and he would suppose it might be very useful on the spot, where it could be used freely in the form of baths, as well as internally, but he would not consider it desirable for transportation.

In reply to a question by Dr. G., Dr. Smith said that about two pints was a sufficient quantity of mineral water for an invalid to take, in divided doses, during the day. One reason why so many fail to obtain relief at watering places, is that they go there with the idea that they must drink large quantities of the water, and therefore drink several tumblerfuls at once, and repeat the dose several times during the day. Another evil is drinking them too rapidly. Large quantities of mineral water, swallowed in haste and often repeated, will injure instead of improve the digestive functions; and in order to receive the greatest amount of benefit, the patient should drink small quantities slowly, and take a moderate amount of exercise after each draught.

S. H. Orton, M.D., was elected Resident Fellow of the Academy.

Ridiculous Questions to a Parisian Bachelor of Medicine.—In 1644, before a Parisian Bachelor of Medicine could get a license to practise medicine, he had to read and defend before a numerous assembly various theses on physiology and medicine as well as hygiene, besides answering questions like the following: "Are heroes born of heroes?" "Are they bilious?" "Is it good to get drunk once a month?" "Is woman an imperfect work of nature?" "Is sneezing a natural act?" "Have bastards more mind than legitimate children?" "Is it necessary to take count of the phases of the moon in cutting the hair?"—*N. Y. Med. Journal.*

Hæmatrometra.—Klob believes that *hæmatrometra* is generally caused by the collection of the menstrual blood, in consequence of atresia of the genital canal. These atresiæ occur most frequently in the vagina from congenital or acquired causes, or from imperforation of the hymen.

Correspondence.

SOUTHERN HISTORICAL SOCIETY.

CONFEDERATE LOSSES DURING THE CIVIL WAR, 1861–65.

IMPORTANT CORRESPONDENCE BETWEEN THE SECRETARY, DR. JOSEPH JONES, AND GEN. S. COOPER, FORMERLY ADJUTANT-GENERAL OF THE CONFEDERATE STATES.

At the last meeting of the Southern Historical Society, the Secretary submitted the following correspondence:

NEW ORLEANS, August 2, 1869.

GEN. S. COOPER,
Alexandria, Virginia.

Dear Sir—You will please excuse the liberty which I take in trespassing upon your valuable time.

I have recently been preparing for the Southern Historical Society a paper upon the losses of the Confederate Army, from battle, wounds, and disease, during the civil war, 1861–65. The following general results of my investigation are most respectfully submitted to you for examination and criticism.

KILLED, WOUNDED, AND PRISONERS OF THE CONFEDERATE ARMY DURING THE WAR 1861–65.

Year.	Killed.	Wounded.	Prisoners.
1861	1,315	4,054	2,772
1862	18,582	68,659	48,300
1863	11,870	51,313	71,211
1864 } 1865 }	22,000	70,000	80,000
Total	53,773	194,026	202,283

If the deaths from disease be added, the sum total will represent the entire loss. The returns from the field and general hospitals are known, for 1861 and 1862.

Confederates killed in battle, 1861–2	19,897
Deaths caused by wounds in field-hospitals .	1,623
" " " in general hospitals	2,618
" " disease in field-hospitals .	14,597
" " " in general hospitals	16,741
Total deaths in the C. S. A., 1861–2	55,470
" wounded in the C. S. A., 1861–2 . . .	72,713
" prisoners " " " . . .	51,072
" discharged " " " . . .	16,940
Total wounded, prisoners, and discharged 1861–2	140,725

If it be fair to assume that the total mortality of 1863–4 was fully equal to that of 1862, then the total deaths in the Confederate army, 1861–65, was at least 160,000, exclusive of the deaths in Northern prisons, which would swell the number to near 185,000; and if the deaths amongst the discharged for wounds and disease, and amongst the sick and wounded on furlough be added, the grand total of deaths in the Confederate army during the entire war did not fall far short of 200,000. According to this calculation the deaths from disease were about three times as numerous as those resulting from the casualties of battle.

The available Confederate force capable of active service in the field did not during the entire war exceed six hundred thousand (600,000) men. Of this number not more than four hundred thousand (400,000) were enrolled at any one time, and the Confederate States never had in the field more than two hundred thousand (200,000) men capable of bearing arms, at any one time, exclusive of sick, wounded, and disabled. If the preceding calculation be correct, we have the following figures illustrating the losses of the Confederate armies during the war.

Confederate forces actively engaged 1861–65	600,000
Total deaths in C. S. A.	200,000
Losses of C. S. A. in prisoners, 1861–65, which may be considered as total losses, on account of the policy of non-exchange by U. S.	200,000
Losses of C. S. A. by discharges, disability, and desertion	100,000

If this calculation, which is given only as an approximation, be correct, *one-third* of all the men actively engaged on the Confederate side were either killed outright upon the field, or died of disease and wounds; another third of the entire number were captured, and held for an indefinite period in Northern prisons; and of the remaining two hundred thousand at least one-half were lost to the service by discharges and desertions. At the close of the war the available force of the Confederate States numbered scarcely *one hundred thousand effective men.*

The resolution, unsurpassed bravery and skill with which the Confederate leaders conducted this contest, is shown by the fact that out of 600,000 men in the field about 500,000 were lost to the service. At the close of the war the 100,000 Confederates were opposed to one million (1,000,000) Federal troops.

Your approval or disapproval of this calculation is most respectfully solicited. The distinguished ability with which you discharged the responsible and arduous duties of Adjutant-General of the Confederate Army qualifies you above every other officer of the late C. S. to decide how far such calculations may approach to accuracy.

With great respect and the highest esteem,
I have the honor to be
Your obedient servant,
JOSEPH JONES, M.D.,
Sec. and Treas. Southern Hist. Soc., Prof. Chemistry Med. Department Univ. of Louisiana.

NEAR ALEXANDRIA, Virginia, August 29, 1869.

DOCTOR JOSEPH JONES,
Sec. and Treas. of the South. Hist. Society,
New Orleans, La.

Dear Sir—I have had the honor to receive your kind and interesting letter of the 2d inst., and beg you will accept my best thanks for the same.

I have closely examined your several statements in respect to the Confederate military forces during the late war, as well as the casualties incident thereto, and I have come to the conclusion, from my general recollection, which those statements have served to enlighten, that they must be regarded as nearly critically correct. Most of the returns from which you most probably have derived your information must have passed through the files of my office in the Confederacy, and if reference could be made to all the records of that office they would, I have no doubt, enable you to give nearly a complete history of the strength and operations of our armies in detail. The files of that office, which could best afford this information, were carefully boxed up and taken, on our retreat from Richmond, to Charlotte, N. C., where they were unfortunately finally captured, and, as I learn, are now in Washington, where they are properly arranged in a separate building, with other records appertaining

to the Confederacy. I presume that by proper management reference might be had to them. Indeed, I had at one time contemplated to make an effort to renew my acquaintance with those records by a personal application to the authorities in Washington, but I finally abandoned the idea. It would afford me much pleasure to furnish you with the information in the tabular form you have suggested, but it would be quite impossible for me to do this without reference to those records. I can only state from general recollection that during the two last years of the war the monthly returns of our armies received at my office, exhibited the present active force in the field nearly one-half less than the returns themselves actually called for, on account of absentees by sickness, extra duty, furloughs, desertions, and other casualties incident to a campaign life. These returns were kept with great secresy, in order to prevent the enemy from becoming acquainted with our weakness.

Another disadvantage was also felt in the limited number of our suitable weapons of war, and I believe it will be found on examination that the most approved and tried arms in the hands of our troops were captured from the enemy in battle. These and many other incidents of a like nature, if brought to light, would exhibit the greatest disparity between the two opposing forces, if not alike in the number of troops, as you have exhibited in your tables, at least of sufficient importance to satisfy every unprejudiced mind, that we were constantly laboring throughout the contest under every possible disadvantage. I perceive by the printed prospectus of the "Southern Historical Society," which you were so kind as to send me, that time must be given in collecting the necessary facts, which are to be the basis of this important work, before it shall be prepared and given to the public. To this end it will be my endeavor to contribute from time to time such facts as I may be enabled to collect, and as may be deemed of consequence by the Society.

With great respect,
I have the honor to be
Your obedient servant,
S. Cooper.

THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK.

To the Editor of the Medical Record.

Sir—In *The World* of October 19th, there is published what appears to be an official copy of the Introductory Lecture of Prof. John W. Draper, M.D., LL.D., delivered on the evening of October 18th, in the Medical Department of the University of New York. The following passage happens about the beginning of the lecture, and serves as the peg on which the Professor hangs the remarks which make the staple of his discourse:

"When I first attended lectures as a student in the University of Pennsylvania, there was a faculty which, for learning and celebrity, had never and nowhere been excelled. Yet it often occurred to me, while listening to the lectures, how great was the waste of time, how imperfect the plan pursued. Our class repaired to the lecture-room, the professor made his appearance, read from his manuscript for an hour, the bell rang, the book was closed, and we were dismissed to another room to go through another—a similar performance."

Now, Dr. Draper's memory in the above statement is singularly at fault. Dr. D. attended lectures in the Medical Department of the University of Pennsylvania in the sessions 1834–35 and 1835–36, graduating in April, 1836. In the session of 1835–36, the Medical Faculty was composed of Professors Chapman, Hare, Gibson, Horner, Jackson, Wood, and Hodge *Of these seven professors, Dr. Chapman was the only one who read his lectures.* Drs. Hare, Gibson, and Horner never had notes of any kind before them, and Dr. Jackson very rarely even short memoranda. Drs. Wood and Hodge had notes, to refresh their memory, but from which they did *not read*—the larger part of their courses being strictly demonstrative, as were those of Drs. Hare, Gibson, and Horner. Professor Draper's statement is, therefore, what a *communiqué* in a French official journal would style, "*totalement inexact.*"

In a later portion of the lecture, Dr. Draper would lead his hearers and readers to infer that the system of so-called "College Clinics" was inaugurated by the Medical Department of the University of New York in 1841. Now, the fact is, that college clinics, medical and surgical, were given both in the University of Pennsylvania, and in the Jefferson Medical College, at the very time Dr. D. was a medical matriculant in Philadelphia, five years prior to the time named by Dr. D. in his Introductory Lecture; and were really introduced into the Medical Department of the University of New York by Professors G. S. Pattison and Revere, both *transfuges* from Jefferson Medical College.

I am, my dear sir, very faithfully,
Your ob't servant,
Meredith Clymer, M.D., *Univ. Penn.*

New York, Oct. 21, 1869.

New Instruments.

AN ARTIFICIAL LEECH.

by Andrew H. Smith, M.D.,
of New York.

The want of an efficient substitute for the living leech is one which has called forth a good deal of inventive effort. Even when the living leech is obtainable, there are many circumstances attending its use which detract more or less from its value. In the first place, the appearance of the animal is repulsive and disgusting, and delicate and sensitive persons find it difficult to overcome their repugnance to contact with the cold and slimy reptile. This is especially the case when it is a question of their application about or within the mouth. Then again, their disposition to crawl into cavities or passages results sometimes in very annoying accidents. Another source of annoyance is that they are often unwilling to bite—the patience of all concerned being exhausted in fruitless efforts to induce them to take hold.

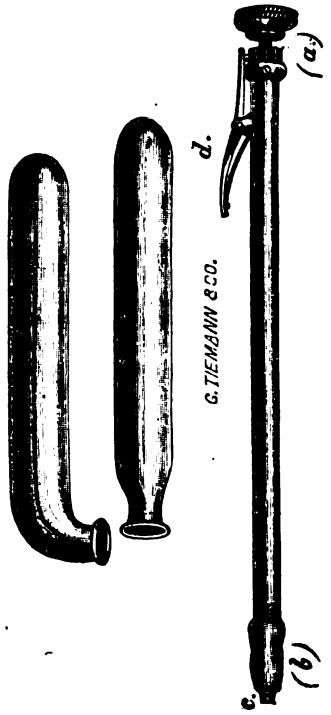
The expense, too, of a considerable number is by no means trifling.

In view of these facts an artificial leech which would be efficient, easily applied, and adapted to all cases for which the living leech is used, would be hailed by the city practitioner. The value to the country physician, however, whose means of local bloodletting are restricted to cupping or simple scarification, would be simply inestimable.

It is believed that this desideratum has been attained in the instrument figured below, the invention of Mr. F. A. Stohlmann, of the firm of Tiemann & Co., based upon a suggestion furnished by me.

The principal feature is the employment of light glass tubes, from which the air is expelled by the vapor of ether, and which imitate very closely the suction of the natural leech as the vapor within them condenses. In

all previous attempts at an artificial leech the vacuum has been produced by the action of a piston. This renders the instrument too heavy to retain its position, and necessitates its being constantly held. This precludes the application of any number at once, even if



the cost of half-a-dozen such instruments were left out of the account. But in the case of this leech, the tubes, being exceedingly light, attach themselves at once, remaining in position until filled; and as the cost of a dozen of them is but a few cents, there is no limit to the number which may be applied.

To expel the air from a tube a few drops of ether are poured into it, and it is then immersed as far as the mouth in hot water until the ether boils briskly. The mouth of the tube is then applied to the skin, and held for an instant, when it will be found to be firmly attached, and can be left to itself. Each tube will draw about 2 ounces of blood. For uterine practice they are made long enough to be applied through a speculum.

The scarifier is simply a tube ⅛ inch in diameter, having a cutting edge at one extremity. By a simple device this is made to rotate rapidly, making, when applied to the skin, a circular incision, the depth of which is regulated by a gauge.

The pain produced by the incision is remarkably little, owing to the great rapidity with which the cutting edge revolves. It is well known that wounds inflicted by a circular are almost painless, and the same principle has been applied in this case. The instrument operates without noise—an important consideration for timid patients.

In the cut (*a*) represents the buttons, by turning which the instrument is wound up, (*d*) the trigger, by which the spring is released, (*c*) the cutting edge, and *b* the gauge for regulating the depth of the incision. The instrument is made long enough to operate through a speculum.

The tubes for general use have the mouth on the side, but some are made straight, as more convenient of application in certain cases. The entire apparatus, including half-a-dozen tubes and a vial of ether, is contained in a small case adapted for the pocket, and need not cost more than the application of a dozen leeches.

Medical Items and News.

NEW YORK MEDICO-LEGAL SOCIETY.—The following members have been elected officers of the New York Medico-Legal Society for the ensuing year:—Jacob F. Miller, *President;* Wooster Beach, M.D., *Vice-President;* J. C. Morton, M.D., and John C. Peters, M.D., *Recording Secretaries;* Jean F. Chaveau, M.D., *Corresponding Secretary;* Thomas S. Bahan, M.D., *Treasurer;* William Shrady, *Librarian;* Joseph Cushman, M.D., *Curator;* T. C. Finnell, M.D., Francis Tillon, Jacob Shrady, A. Wohlfarth, M.D., and Stephen Rogers, M.D., *Censors.*

NEW YORK COLLEGE OF PHARMACY.—The fall and winter course of lectures of this Institution commenced October 4, 1869. The following gentlemen are professors: O. F. Chandler, Ph.D., Prof. of Chemistry; W. De F. Day, M.D., Prof. of Materia Medica and Botany; E. R. Squibb, M.D., Lecturer on Practical Pharmacy. A prize of fifty dollars will be given to the most proficient graduate in March next.

BELLEVUE HOSPITAL MEDICAL COLLEGE.—This college began its "Regular Term" on the 13th of October, but the "Preliminary Term" was in reality an extension of this by four weeks, the full corps of Professors giving lectures and clinics in accordance with the winter programme. An out-door surgical clinic, by Profs. Mott and Hamilton, and a clinic for Nervous Diseases (3½ P.M., Saturdays), by Prof. Hammond, are valuable features introduced this season.

The Introductory Address was delivered by Prof. Van Buren. As we were unable to be present, we clip an abstract of it from *The World:*—

"In his address, Dr. Van Buren told the students that they had chosen as their Alma Mater an institution which, owing to its uniting the practical with the didactic, lectures with 'bed-side' teaching, had a history unprecedented in the annals of American medical institutions. He welcomed the ladies, and expressed the hope that the time might come when they should be regular attendants at medical lectures. He advised the students to study hard at the commencement of their course, as here was the most difficulty. If their main object in life was to make money, it would be better to select some other avocation, for, although the practice of a well-established doctor was lucrative, still long years were generally required to achieve such a practice. The necessity of gaining a livelihood, and the demand for physicians, frequently urge a young man to commence practice before he is fully prepared, and yet our American system of instruction has been so adjusted as to materially do away with these difficulties; it is its design to send from college many-sided students, who have seen all that can be exhibited in the lecture-room, the hospital, and the operating theatre, and learned all that can be learned from the appliances of medical colleges. He spoke also of the necessity of understanding the Latin and Greek languages; science needed a tongue comprehensible by the scholars of all nations, and this was to be found only in the dead languages, without which the confusion of Babel would impede the progress of learning. A Russian or a Hindoo anatomist calls the great flexor muscle of the forearm the *biceps flexor cubiti*, just as we do, and the advantage of this was perfectly evident. The acquisition of no modern

language could supply to the doctor the want of a knowl dge of Latin. He said further, that 'specialties' in medicine must be preceded by a broad general knowledge of the subject, and must not be taken up merely according to whim, caprice, or preconceived preference. He would advise a student to study everything in the form of disease that came in his way, and fill up the intervals with physiological and pathological anatomy. If the student insisted on being a specialist, time and circumstances would guide him most propitiously while pursuing this course. Dr. Van Buren spoke also of the periodical outcry of ignorant persons against vaccination, 'one of the best gifts of medical science to humanity.' Such absurdities, however, soon die out for want of sound vitality. Since the discovery of vaccination by Jenner, it has saved more lives than all the battles of the world have sacrificed during the same period. Neither should doctors be scandalized by the wealth and 'success' of quacks, who make merchandize of nostrums, nor by the 'approval with which public opinion seems to sanction the unfounded pretensions of the ignorant and base.' The only true test of a physician's merit is the esteem in which he is held by members of his own profession."

THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK opened its twenty-eighth session October 18, in its new building opposite Bellevue, with an introductory address by President DRAPER. Since the burning, in 1865, of its old building in Fourteenth street, this college has been hampered by an inconvenient location and contracted accommodations in a part of the New York Hospital. But, through the liberality of a friend of the institution, Mr. Palmer, it has now everything in these respects that could be desired. A glance at its lecture and dissecting rooms is enough to show how carefully the comfort of the student has been provided for. With the change it has increased its clinical facilities, one college and one hospital clinic being held daily.

In his address, Professor Draper reviewed the subject of public education, first in its more general aspects, then with special reference to the medical profession. He indulged in some amusing reminiscences of his own early experience, and contrasted the routine system of instruction of the last generation with our more enlightened method. He agreed with Herbert Spencer, President Hill, and others who have deeply considered the subject, that a child's education must at first concern itself with the cultivation of the senses and perceptive faculties, as in the modern Kindergarten system. Having learned to observe, the child must be taught to think; and for this, the subject presented for his study must be such as he can understand. Grammar was too abstruse and metaphysical for the young mind to comprehend, arithmetic and geometry were good discipline; but algebra, in the Doctor's opinion, was only a cunning invention to save the trouble of thinking, and as useless for mental discipline as a multiplying machine. History, geography, natural history, drawing, music, and at last language, should fill up the first sixteen years.

We cannot assent to the speaker's view that at this age a boy's "general" studies should cease; that he should then choose his profession, and begin special preparation for it. Few young men have by this time either taken a sufficiently wide range through the fields of intellectual activity to give them the data for choice, or gained such maturity of judgment as would wisely employ the data at command. If thus early they begin to postpone the demand of a broad culture to those of a special profession, it will be at the expense of general intellectual power, and of that comprehensiveness of view which alone can enable them to gain the highest result in any department of study.

Dr. Draper's advice to the students, respecting the proper order in which to take up their medical studies, and the best methods of pursuing them, was substantially the same as that of the introductories which we gave, in full and in abstract, in our last number. In conclusion, he insisted, with an earnestness which we heartily share, on the urgent need of university scholarships and fellowships in this country.

THE annual discourse in commemoration of the 22d anniversary of the New York Academy of Medicine will be delivered at the College of Physicians and Surgeons, Fourth avenue, corner of Twenty-third street, by Gouverneur M. Smith, M.D., on Thursday, 11th inst., at 8 o'clock P.M.

THE NEW NEW YORK INSANE ASYLUM.—The Committee appointed by the Governor to locate a site for the Insane Asylum in Western New York, at a meeting Oct. 15, selected Buffalo.

PROF. E. R. PEASLEE has recently been elected corresponding member of the Obstetrical Society of Berlin. Of this Society the distinguished Dr. E. Martin is President.

THE MEDICAL LIBRARY OF THE LATE ISAAC WOOD, M.D., has been deposited by his son, Mr. Isaac F. Wood, with the Mott Memorial Medical Library. The collection contains, among other works, complete sets of the Medico-Chirurgical Review, Transactions of the American Medical Association, etc.

A GOOD APPOINTMENT.—Dr. William Maxwell Wood, who has been appointed Chief of the Bureau of Medicine and Surgery in the U. S. Navy, is a native of Maryland, and entered the service 40 years ago as Assistant Surgeon. He has been Fleet Surgeon of three squadrons—the Pacific, North Atlantic, and East India. Dr. W. has written a work on "Polynesia and South America," "A Visit to India, China, and Japan," and "A Shoulder to the Wheel of Progress."

A DECORATION TO PROF. BRUNETTI.—This celebrated Paduan anatomist has been decorated with the Orders of St. Anne of Russia and St. Gregory the Great of Rome. The last Order was conferred by the Pope, for his researches on the art of preserving animal structures.

THE ALBERT MEDAL BESTOWED.—The Council of the Society of Arts have awarded the "Albert Medal" to Baron Liebig, in recognition of his chemical researches.

A TESTIMONIAL TO PROF. SYME.—The former pupils of Mr. Syme will raise a testimonial to this distinguished teacher and surgeon. The names should be transmitted to Dr. Murchison, of London. Probably it will be in the shape of a marble bust and a surgical scholarship.

LECTURESHIP ON PHYSIOLOGY FILLED.—Mr. Morant Baker has been appointed Lecturer on Physiology at Bartholomew's Hospital, London.

GRADUATES AT AMERICAN LITERARY COLLEGES.—At the annual commencements of the colleges in the United States, during the past season, 1,047 young men received the degree of Bachelor of Arts. Yale and Harvard Colleges took the lead. The former graduated 116; the latter 106.

THE COMPOSITION OF ONE HUNDRED POUNDS OF MEAT.—One hundred pounds of meat from the butcher contain, on the average, 21¼ lbs. bones, 11½ lbs. fat, 50·9 lbs. water, 2·2 lbs. soluble extract, and 13·9 lbs. albumen and fibrin.

Original Communications.

ON THE MENTAL CONDITION REQUIRED TO MAKE A DONATION OR A WILL.

THE MOST INTERESTING PARTS OF THE MEDICO-LEGAL COMMENTARIES ON THE

ART. 901 OF THE CODE NAPOLEON,

BY M. LEGRAND DU SAULE, PHYSICIAN OF THE ASYLUM FOR THE INSANE OF BICETRE,

Compiled and translated from the Transactions of the Paris Medico-Legal Society.

BY JEAN F. CHAUVEAU, M.D.,

NEW YORK.

BEFORE departing from this life, man has a solemn act to accomplish—the last of all—and the one which necessitates the most care and attention—the making of his will.

Its importance is attested by the scrupulous formalities with which the legislators of the past centuries have surrounded it.

In one of his admirable speeches, d'Aguesseau, in speaking of wills, considered the last request as a sort of consolation granted to men, in allowing them to live again in the persons of their successors, and procuring to themselves an image and a shadow of immortality, by having a long line of heirs, who might become an eternal monument of the wisdom and power of the testator.

The person who disposes of his property must only obey his own incitation.

If he listens to the perfidious counsels of impatient and craving persons who surround him; if he assimilates to himself suggestions of others; if he submits to the intimidation exercised by others on his weak mind, he is no more free.

The Art. 901 of the French Code says: "To make a donation or a will, a person must be sound in mind." Notwithstanding the clearness of this legislative provision, we could enter into interminable discussions, for we do not always know "the divers atoms of which Voltaire has spoken that cause the mind to be right or wrong."

There is a secret spring that conceals itself sometimes from our most patient investigations; and without concurring with La Bruyère, that "discernment is the rarest thing in this world except diamonds and pearls," I have the intimate conviction that every day families are shamefully wronged by acts performed without due reflection, and signed at the last hour under the pressure of interest.

This is the wrong I would like to prevent. Before entering on the vast domain of cerebral pathology, I feel myself obliged to fix for a moment your minds on the different states of the faculties during the divers ages of life. You all know how man lives, but I must tell you how he dies. When you are aware how a man dies, you will certainly know if he be in a proper condition to make a will.

Man is so constituted that he never can enjoy a permanent equilibrium of his mental faculties. When he has acquired all, he begins to lose; if he cannot regain anything, he continues to lose. Nothing is immutable—life has its seasons—none can struggle against them.

The child that chats and the old man that dotes are both deprived of reason—that "inward Master" of which Fénélon speaks. The first one cannot yet form his ideas, the second one has no more thoughts.

It is the mind that constitutes the being of man, says Pascal; it is the mind that guides us in the different phases of our existence; it is the mind which, being sane, diseased, or moribund, assists us at the moments which precede our physical dissolution. Too exclusively occupied with the diagnosis and the treatment of diseases that he is called to cure, the physician often loses sight of interesting and important matters; he does not pay much attention to the state of the mind of his patient, and he does not always seize the opportune moment of advising him to think of his affairs and to make his will.

It can happen, then, that dispositions taken by a mind that is not strong, by a will that is on the point of slumbering, can upset the happiness of families, and favor cunning, hypocrisy, and audacity.

We cannot but feel a certain emotion while looking over the pages in which Bichat has described the decrepitude of the body. With what bold strokes does he picture that old man, isolated in the midst of nature, deprived of desires, of sensations, who is losing his ideas, the memory of present events, whose perceptions are being effaced by degrees!

The progress of age brings surprising changes in the disposition of the old. He becomes a being profoundly egotistical. As each step that he takes is one towards death, he finds himself frequently thinking only of himself, and of his preservation. Time throws a veil over his powers of attachment, and if the ties that unite him to his family and to his friends daily grow weaker, he himself takes, each day, secret revenge, and loves himself the more.

If, putting those tendencies to profit, the persons that surround him seem to take an interest only in him, in his health, in his wants, we can easily understand that he will slowly come under the influence of such sympathetic hearts. In this matter, however, the presumption is always in favor of the moral liberty of the testator, and it is rarely that a physician is called upon to give his opinion in the matter.

From the old to the moribund there is but a short distance. If the latter has yet the feeling of his personal identity, he is very often incapable of affection; he loves nothing except life, perhaps, and he is disposed to submit, like an automaton, to a foreign impulsion, against which he will not attempt a useless struggle. At that supreme moment cupidity watches; a dangerous chance is opened to the attempts made by spoliators.

Without wishing to deduce fixed rules from the phenomena shown during the closing scenes of life, I believe it possible to bring to three distinct classes the different kinds of diseases which lead us to death.

The first class embraces the numerous affections in which delirium does not exist or hardly ever appears. Not only the intelligence is preserved to the last, but it acquires sometimes a remarkable degree of penetration.

The second class is composed of those diseases which affect the brain but secondarily. The mental faculties are in a mixed condition, and the patient has, so to speak, one foot on the side of reason, the other on that of delirium.

I place in the third class all the lesions of the brain, and we know that they are nearly all accompanied by the loss of the understanding.

With this division we shall be able to review without confusion, and to appreciate the dispositions of the mind belonging to each, and prepare, hereafter, an answer to this question so often put: "Was the testator sound in mind?

1st. Delirium is an exceptional phenomenon to the terminal period of a group of diseases, among which I

will mention principally pulmonary consumption, cardiac and hepatic affections, cancer of the stomach and intestines, hemorrhage, and a great majority of surgical lesions. It is never seen in any of the phases of articular rheumatism, of pleurisy, of pericarditis, of peritonitis, nor, in general, in inflammations of the serous membranes. The patient, in these latter diseases, possesses a lucid mind to the last moment.

2d. At the end of chronic diseases, when the blood is poor, the nervous system becomes very impressionable; the least cause, in appearance insignificant, can disturb the mind. That phenomenon, due to a sympathetic or reflex action, indicates the part taken by the brain in the diseased condition of a distant organ, or the participation of that organ in the general debility. Hence follows a series of oscillations of the mind, of irresolutions very interesting to study.

Without doubt, every one can find in the midst of that peculiar state of mind some sparks of sound judgment, but there are, nevertheless, evident traces, although fugitive, of aberration.

I must not omit, while speaking of the second class of diseases—those that affect the brain secondarily—to establish a differential diagnosis of great importance. We see at times families, and even physicians, ascribe to the progress of the disease a depression or hyperexcitation of the nervous system, which is only due to the therapeutical agents. Let us remember that the disturbance in the patient's mind produced by belladonna, hyosciamus, digitalis, hashish, is accompanied by loquacity, agitation, illusions; that opium produces sleep, with continual dreams, then coma, something like the poisoning by lead; besides, the dilation of the pupils in the poisoning by solanum, their contraction during the delirium due to opium, and the anæmic discoloration of the skin following lead poisoning, are so many accessory phenomena which the physician must note, and which will be of great use if he is called upon to appear as medical witness.

A will made during a violent passion can be annulled, its author not being sound in mind. A jealous man conceives an unjust feeling of hatred against his wife, makes his will, disinherits his right heirs, and drowns himself. The Court, considering the want of wisdom shown in his will, the feeling of repulsion shown towards his wife, the ideas expressed of poisoning himself, his grief, his wandering look, the manner in which he ended his life, are sufficient proofs that he made his will during a state of aberration of mind, annuls it.

That decision was maintained by the Court of Liege the 12th of February, 1812.

Can the mere motives of hatred and of anger be sufficient to nullify a will? I believe not. The feeling of enmity which a testator can nourish against his heirs, the anger which has caused him to disinherit them, may certainly be very unjust, but concerning this he is not compelled to give an account to any one.

The action "ab irato" could not be admissible now as it was formerly.

In what mental condition is a person a short time before committing suicide?

There are two distinct forms in voluntary death—one which allows the mind to remain sound, the other which shows mental aberration.

Monsieur Bierre de Boismont has collected 1328 letters, in which the most varied sufferings of the human heart are depicted in a graphic manner.

In looking over those pages, we find that the last sentiments expressed by those who committed suicide, can be ranged in the following order: Reproaches, abusive language, reflexions on the causes of their tragic end, instructions for their funeral, wishes that no one should be accused of their death, avowal of a crime, an affection, or a bad action, hope of being pardoned, solicitude for the future of their children, confidence in God, words of kindness, regret of life expressed, belief in a future, fatalism, etc.

Among those 1328 letters our honorable colleague found 85 wills, most of which were clear and showed a great presence of mind. There, the suicide was accomplished in physiological conditions, and the wills, if brought into court, could not have been disputed.

May I now speak of insanity in general? "If the lunatic," says the Roman law, "has recovered his reason, or if he has made a testament during lucid moments, it can be accepted, and the more so if the will has been made before insanity was shown."

The French law, judging that all would be doubtful and arbitrary if intervals of lucidity were admitted, has not authorized this intermediate state, and the Art. 901 of the Code Napoleon, contents itself by saying: "To make a will the testator must be sound in mind."

The question has been frequently asked, whether one or more attacks of insanity could allow of moments sufficiently lucid for the patient to make a will?

This does not seem doubtful to us, and there are no physicians attached to an insane asylum who have not made the experiment by having a patient write a will during those moments of lucidity, which was irreproachable.

It belongs, therefore, to the heirs to prove that at the time the will was made the testator was or was not sound in mind; either it contains reasonable clauses, and the one who disputes it must prove the insanity of the donor, or the act can show some aberrations, and it is due to the heirs to establish the sound state of the testator.

Mr. Serre saw at Toulouse a will objected to and finally rejected, on the plea that the man, Aymant du Moret, during his life, thought himself a woman, although in every other respect he was perfectly sane.

We frequently see during general paralysis of the insane—a disease now common—moments during which the patients regain their intellectual faculties, return to their homes, and mix in the affairs of life. There is here, however, a great danger if a will is made during such intermission of symptoms, for the patients remain with a weak mind.

P——, officer, suffering from general paralysis, enters the asylum of Marseilles the 10th of June, 1851. An intermission takes place. A brother of his, for whom he has no feeling of sympathy, comes to see the sick man and gets him to make a will in his favor. P. becomes once more a raving maniac. A second brother of the patient, one whom he loved, arrives in France, calls to see him, and another will is made in favor of this last one.

Hallucinations are not an obstacle to making a will, providing they have not destroyed the natural affections of the patient, and that he has fulfilled his social duties.

It is important to study, with a scrupulous attention, the acts that spring from individuals who, during the latter part of their lives, have suffered from congestion or hemorrhage of the brain. Without doubt, the intelligence is not always affected, and the wills are not frequently and easily put aside; but it will happen sometimes.

How do congestion of the brain and apoplexy affect the intelligence? Slight congestions, which last but a short time, and do not seem at first to affect the mental faculties and locomotion, but increase gradually in intensity, are more serious, as far as the disorder of

the mind is concerned, than strong attacks accompanied and followed by complete hemiplegia, and even when some difficulty in pronouncing words does exist.

Those frequent slight congestions show the commencement of *ramollissement*, and that affection obliterates reason in a greater degree than cerebral hemorrhage.

The patients who, after a few days of an attack of apoplexy, show hemiplegia, and have no impediment in their speech, have more chances to keep their minds sound than those who have no hemiplegia and some difficulty in uttering words.

We can understand, from what has been said, that medical jurisprudence draws from pathology and diagnosis its elements of scientific exactness; and if it is necessary to give an opinion on the validity of the will of an apoplectic patient, it is important to collect all the indications which surround the case, in order to be capable of judging of the degree of intellectual weakness the patient manifested when he made the will.

The name *aphasia* has been given to a pathological condition which consists of the total or partial loss of words, leaving the intelligence in a state of integrity.

In many cases the medical expert can enlighten the court on that strange loss of the memory of words, and he can show that a person who can neither speak spontaneously, nor read what he has written and signed, has accomplished an act with a free will; that in one subject the loss of language has left the power of writing; in another, the power of expression and that of writing are both impaired.

In law, the expression of the last will is immutable. Man disappears from the world, all his wealth dies with him; but he has dictated instructions that must survive him.

He has commanded; he must be obeyed.

To enjoy that posthumous authority, the testator must fully satisfy one of the just exigencies of the law —he must be sound in mind.

Therefore we will sum up the mental conditions required by the donor in the following conclusions:

1st. Extreme old age does not prevent a person from making a sound will.

2d. In each particular case we must know if the patient had kept his mental faculties in a state of integrity; if he had not shown weakness or insanity of old age.

3d. We can divide into three classes the diseases which lead to death.

In the first one the intelligence is not affected.

In the second it is affected.

In the third it has disappeared completely.

4th. The testamentary act, *ab irato*, cannot be annulled, unless it can be proved that passion has destroyed reason.

5th. Suicide is not a proof of insanity.

6th. All acts made and signed during an interval of lucidity in the insane can be disputed.

7th. In the intermission of symptoms so frequently seen in general paralysis of the insane, the patients regain but imperfectly the full faculties of their minds.

8th. The existence of hallucination does not prevent the patient from making a sound will if the powers of attachment have remained intact.

9th. Cerebral congestions and apoplexy determine frequently a peculiar mental condition; in a medico-legal point of view, they should claim the attention of the medical expert.

10th. The mental condition of the apoplectic patient can be divided into four distinct degrees, according to Doctor Jules Falet:

1st. The patient has lost some strength of mind; he is more easily led; he can be controlled and frightened, although he seems more irritable. It requires one to be constantly with him to notice those modifications that pass generally unperceived.

2d. The patient is more impressionable and more sensitive; he is irritable, or sheds tears from the most futile motives; his intelligence is less active, his memory feeble. He uses frequently one word for another. The will is almost powerless. In this condition he has still a great number of rational ideas.

3d. The patient's judgment and memory have disappeared. He becomes easily frightened by hallucinations; he has fearful visions. He has sometimes a great agitation or a special form of anxious melancholy. The mental debility is positively shown.

4th. The insanity of the apoplectic patient is complete, absolute:—Impossibility to utter words that can be understood; total absence of ideas, of comprehension; habitual calm; great uniformity in all the symptoms.

11th. In some cases the patients affected with aphasia cannot make a will.

THE HYPODERMIC USE OF ERGOT FOR POST-PARTUM HEMORRHAGE.

By FREDERIC D. LENTE, M.D.,

OF COLD SPRING.

It occurred to me some time ago that one of the most important applications of the hypodermic method of medication would be in the use of ergot for the arrest of *post-partum* hæmorrhage. We here wish the most prompt effect of the drug attainable, while the irritability of the stomach, usually present in severe cases, is apt to cause a rejection of the remedy; or, if retained, the vital powers are at so low an ebb, absorption is tardy or perhaps entirely suspended. Intending to try the experiment myself at the first favorable opportunity, I suggested it to several friends engaged largely in obstetric practice, all of whom regarded the suggestion as valuable, but none of them, so far as I know, have put it to the test. I now desire to bring it more formally before the profession by the recital of a case in point.

Mrs. E. D. was delivered by me a few days since, after a natural labor, of a male child of more than average size. The *placenta* followed soon after with but trifling assistance. Almost immediately after, although my hand never left its grasp of the uterus, fluid blood gushed forth in large quantity, and, within a very short time, the patient was blanched, and almost pulseless and insensible. The following means were resorted to promptly: Head on a level with the body, kneading the uterus with one hand while the other was passed into the vagina, and the fingers into the uterus, to turn out any clots which might be there, and to stimulate contraction, repeated twice; cloths wrung out of ice water, applied in succession and at short intervals to abdomen and thighs; Squibb's Extract of Ergot in half dr. and dr. doses; passage of a ball of ice into the uterus and held there, afterwards into vagina; ice swallowed *ad libitum;* partial compression of aorta by the edge of the hand grasping the uterus; no stimulants. The uterus would contract firmly enough under these provocatives, but soon relax and become doughy. Finally, injected under the integument of thigh twenty-five drops of the ergot. Within four or five minutes, there seemed to be a more *tonic* contraction of the uterus; that is, it relaxed less frequently; at the end of thirteen minutes, the organ becoming more flabby, injected about thirty-five drops. But I did not notice

any decided effect from this unless it was exerted in the prevention of further hemorrhage, for the patient had no further trouble.

In this case, the hemorrhage had, in a great measure, ceased, it will be observed, before the injection was resorted to, therefore it is not demonstrated that the latter exerted any decided influence. In a similar case, I should use a half drachm, and repeat as often as necessary, until the specific effect of the remedy was obtained; the twenty-five drops do not make a greater bulk than about fifteen minims. Before commencing this paper I was not aware that ergot had ever been used hypodermically for any purpose. But, on taking up the October number of the *Richmond and Louisville Journal*, just received, I find an article alluding to an experiment of Prof. Langenbeck recently performed for the cure of aneurism by this method.

COLD SPRING, October 15, 1869.

Original Lectures.

ON THE

COLLAPSE OR NON-COLLAPSE OF THE LUNG IN PENETRATING WOUNDS OF THE CHEST.

REMARKS MADE BEFORE THE NEW YORK MEDICAL JOURNAL ASSOCIATION, OCT. 22, 1869.

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THAT the lung, under normal conditions, remains in contact with the inner surface of the chest, is owing to the fact that the chest-wall receives the atmospheric pressure which would otherwise be exerted upon the surface of the lung, so that the pressure within the lung, not being neutralized by any external force, keeps the organ constantly inflated to the utmost capacity of the cavity in which it is contained. But if air be admitted to the surface of the lung, the internal pressure is counterbalanced, and the retractility of the pulmonary tissue causes its collapse.

We should therefore, at first sight, expect that every open wound through the pleura would be followed by complete collapse of the lung. But, in point of fact, such a wound may result in any one of three conditions of the lung. There may be complete collapse, partial collapse, or no change whatever of volume, the two pleural surfaces remaining in contact. The mechanism by which these various results are determined is much more complicated than appears on the surface, and is not satisfactorily explained in any work which I have seen.

In fact no writer on the subject, so far as I have yet been able to find, offers any explanation whatever of those cases in which the lung remains completely distended. Abernethy speaks of cases in which collapse did not take place, but adds: "In other experiments, however, collapse has been seen to occur, and the circumstances on which either of these effects depends, are not perhaps well understood." Samuel Cooper merely refers to the frequency of old pleuritic adhesions as preventing collapse, and states as another reason, that "the wound is seldom sufficiently ample and pervious."

Chelius says, speaking of non-collapse: "In some cases this may depend upon adhesions between the lung and the pleura, but in other cases it cannot be explained."

Staff-Surgeon Fraser, of the British army, in his work on wounds of the chest, does not separate cases of partial collapse from those in which the lung remains fully distended, and it is impossible to tell, in many of the cases which he cites, whether the lung remained in actual contact with the chest wall or was separated by an interval from it. In fact he considers it as still unsettled whether the lung fills entirely the thoracic cavity, even under normal circumstances. This same want of precision in the use of the terms *collapsed* and *uncollapsed* runs through the reports of nearly all the writers on this subject, and greatly impairs the value of their observations.

Professor Hamilton, in his work on military surgery, expressed the opinion that some degree of collapse will always occur when the pleura is opened, unless prevented by adhesions. He states that this is uniformly the case in the dead body.

In relation to partial collapse of the lung, we have a multitude of observations by different writers, among whom I may enumerate Williams, Bremond, Littrè, Cruveilhier, Hennan, South, McLeod, Guthrie, Gibson, and Longmore, besides those I have before mentioned. Nearly all of these authors describe at the same time cases or experiments in which the lung remained fully expanded, but the explanations they give plainly do not apply to such cases, but only to those in which the lung has partly subsided.

Williams assumes the existence of a special expansive power in the lungs, entirely independent of the diaphragm and the intercostal muscles, but the source of which he confesses himself unable to determine. His essay was published as lately as 1823. The only other explanations are the following:—

1st. That a portion of air continues to enter the lung, because it finds a readier passage through the trachea than through the wound. It was thought, however, that this was the case only when the orifice of the wound was smaller than that of the glottis. But the fact is, that the phenomena sought to be explained are of frequent occurrence when the wound far exceeds the glottis in size.

Professor Hamilton thinks that in such cases the column of air passing through the trachea in inspiration is divided at the bifurcation, a portion passing, by the momentum it has acquired, into the lung of the wounded side.

The remaining explanation is, that during expiration air passes from the lung on the *sound* side into that of the *wounded* side, as will be hereafter more fully explained.

Now it seems to me, as the result of reflection and experiment, that both these explanations are correct, and that they are unsatisfactory only when either is applied singly to any given case.

Premising that I mean by complete collapse that condition of the lung in which it is neither distended nor compressed by any extraneous force, but has simply the dimensions assigned to it by its own elasticity, I believe that this condition can only occur when the wound is so large as to nullify entirely the movements of that side, or on the other hand, when the wound has become entirely closed; and that in neither of these cases will it continue during both acts of respiration.

Let us suppose, for purposes of illustration, that we have an opening in the chest wall, the size of which we can increase or diminish at pleasure.

We will then first consider the case when the wound is large and free—so free that the air may pass through it in either direction without any obstruction. In this case, unless prevented by adhesions, or by a condition to which I shall advert hereafter, the lung contracts as

completely as it would do if it were removed from the chest. But this complete contraction continues only during inspiration. With every expiratory act the lung is slightly inflated. This is owing to the fact that the glottis is not sufficiently large to allow perfectly free exit to the air from the lung on the uninjured side. A portion of this air is therefore forced through the bronchial connections into the opposite lung, which is perfectly free to expand, since the air by which it is surrounded has easy egress from the chest.

Indeed, were it not for the elasticity of the lung, the quantity of air which would enter it would be to the quantity actually exhaled as the area of its bronchus to the area of the glottis.

I have here a mechanical contrivance designed to illustrate the effect upon respiration resulting from wounds of the chest of different sizes. It consists of two bellows, placed side by side, representing the two cavities of the chest, and made to move simultaneously by means of a handle which is common to both. Connected with each bellows is a tube representing the bronchus; the two tubes merging into one which answers to the trachea. One of the bellows has a bladder within it representing the lung and communicating with the bronchus. The movements of the bladder are exposed to view by means of a plate of glass set into the top of the bellows. This bellows is provided also with an opening designed to represent a wound of the chest-wall, and which may be partly or wholly closed by means of a slide.

On withdrawing the slide entirely and detaching the tube by which this bellows is connected with the other, it will be seen that the movements of the handle have no effect whatever upon the bladder. But upon replacing the tube you perceive that each time the handle is depressed the bladder is partially inflated with air driven from the other bellows.

When the respiration is quiet and regular, the expansion of the collapsed lung with each expiration is comparatively slight; but when the expiratory movement is more forcible and at the same time the glottis is partially closed, a very large portion of the air from the sound lung may be forced into the one collapsed; and two or three such expirations, in rapid succession, may be enough to distend it completely and even to force a portion of it out through the wound, producing hernia of the lung. These points are illustrated in the following experiment:—

A large dog was placed completely under the influence of chloroform, and an opening three inches in length made in the ninth intercostal space on the left side. The lung immediately collapsed, but could be seen to expand slightly with each expiration, subsiding again with each inspiration. As the effect of the chloroform passed off, and consciousness began to return, there was an attempt at a vocal expression of suffering with each expiratory act. This caused a decided increase of the distention of the lung. The wound being closed with the fingers, this vocal effort resulted in a faint moan, which ceased immediately when the wound was uncovered. On introducing an instrument into the back of the neck, with the intention of breaking up the medulla oblongata, loud cries were uttered, and the lung immediately filled the chest and protruded from the wound.

It is to be remarked that in this experiment moderate efforts at phonation were ineffectual so long as the wound remained open. This was, no doubt, owing to the large amount of air which passed from the lung on the uninjured side into the other lung, not leaving enough to pass through the glottis to cause vibration of the vocal cords. But the moment the wound was closed the air imprisoned in the pleural cavity prevented the expansion of the lung, compelling the entire quantity of air from the *sound* lung to pass out through the glottis, and phonation was the result.

The extreme pain from the introduction of the instrument caused an extraordinary vocal effort, involving a violent expulsion of the air from the sound lung and at the same time a further diminution of the opening of the glottis, both of which circumstances contributed to the expansion of the collapsed lung.

Similar observations have been recorded by various writers whose explanations are substantially that which I have given. But they all seem to have overlooked the fact that the converse of this action takes place in inspiration, and that, with the size of wound which we are now considering, the collapse of the lung during inspiration is not merely the passive result of its own elasticity, but the active result of the exhaustion of the air from it by the expansion of its fellow, with which it is in direct communication. This can readily be seen by means of the apparatus. You will perceive that if the bladder is left to itself, at the close of expiration it collapses slowly, but if the handle of the bellows is immediately raised again the collapse is instantaneous.

Thus we see that with this size of the wound the lung remains entirely unaffected by the motion of its own side of the chest, while it has a movement which results from the expansion and contraction of the *opposite* thoracic cavity, and which is precisely the reverse of its normal action.

We also perceive that the sound lung does not receive its entire supply of air from the external atmosphere, but that a portion of it is vitiated air from the other lung.

The withdrawal of this amount of air necessitates the entrance of an equal amount through the wound, in addition to the quantity required by the expansion of the wounded side.

But let us now suppose the wound, instead of being sufficiently free to present no obstruction to the passage of air, to be so much reduced in size as not to allow the entrance of quite enough air to keep pace with the expansion of the chest, and the additional demand by the sound lung. The moment this degree of narrowness of the wound is attained, sufficient air will pass through the trachea into the collapsed lung to supply the deficiency. The close of inspiration, therefore, will find the lung not completely collapsed as in the former case, but slightly expanded. At the same time a new element comes into play in the expiratory act. The air contained in the pleural cavity, not finding perfectly free exit through the wound, is compressed against the lung, and offers an obstacle to the ready passage of air into it from the opposite side. The consequence is a less degree of inflation.

The gross result, therefore, of narrowing the wound has been to diminish the play of the lung, the expansion during expiration being lessened, and the collapse on inspiration rendered less complete.

Hence it is evident that by progressively diminishing the wound, a point would be reached at which the lung would remain motionless, in a state of partial expansion, the various forces operating upon it (including its own elasticity) exactly neutralizing each other.

If now there were intervals of quiescence as in normal respiration, the lung would gradually collapse again by its own elasticity; but in embarrassed respiration these intervals never exist. Inspiration immediately follows expiration, and thus the effect is kept up and the lung not permitted to subside. At the same time, as seen through the wound, the lung has an

appearance of moving, which results from the rising and falling of the ribs. This appearance is so deceptive, that I have introduced an instrument and touched the lung before I could be fully satisfied that it was motionless.

The area of the wound corresponding to the condition in question will be found to have a definite relation to one-half the area of the glottis. And here I may remark in parenthesis, that it is curious with what unanimity authors agree in instituting comparisons between the size of wounds and the entire area of the aperture between the vocal cords, forgetting that this aperture has to supply air to the sound as well as to the disabled lung, and that therefore only half its area should be taken for comparison with a wound of one side of the chest.

But to return to our subject; the degree of expansion which would be maintained in this motionless condition of the lung would depend upon the frequency and force of the respirations, the elasticity of the lung tissue, the character and quantity of the secretion from the bronchial surfaces, and more than all upon the action of the glottis. Just in proportion as this is valvular, facilitating the ingress and impeding the egress of the air, just in that proportion, *cæteris paribus*, will the distention of the lung be greater.

If now we proceed to decrease the size of the wound still further, we shall find the *rôle* which expiration has played as a distending agency is gradually transferred to inspiration. With each progressive step the increasing difficulty with which the air finds admittance through the wound results in an increased supply by the trachea, and a greater distention of the lung.

In like manner, the removal of the air from the lung, which before was accomplished by inspiration, has now become the office of expiration. As the chest contracts, the pressure of the air within it upon the lung is more and more decided as the opportunity for escape through the wound is more and more diminished, and thus the amount of air remaining in the lung at the close of expiration constantly becomes less.

Thus we see that the lung is gradually escaping from the influence of the movements of the opposite thoracic cavity, to which it was at first entirely subjected, and is resuming its proper relations to the movements of its own side; and at last, when we reach the point of complete closure of the wound, we shall find that the quantity of air passing into and out of the lung exactly corresponds to the expansion and contraction of the cavity in which it is contained. There will then occur with expiration that complete collapse of the lung which took place with inspiration at the other end of the scale, and which could not occur at any intermediate point; while the maximum of inflation which then coincided with complete *expiration*, is now observed at the termination of *inspiration*.

This change in the mechanism of the respiration is accompanied by a notable change in its physiological result. While the rising and falling of the lung was merely the result of the action of the uninjured side, not only was it of no avail in depurating the blood, but the action of the other lung was also impaired, since the crippled lung served merely as a reservoir into which its fellow breathed a portion of its vitiated air, to inhale it again at the next inspiration. But the moment the expansion and contraction of the lungs become synchronous on the two sides, this abnormal action ceases.

Hence the difference in the degree of dyspnœa caused by a large and a small wound, though the play of the lung may be the same.

My views, then, as to partial collapse of the lung may be summed up as follows:—

There is a certain size of wound which results in a condition of partial and continuous inflation of the lung, to which both inspiration and expiration contribute.

A wound larger than this causes a greater degree of inflation during *expiration*, and a less degree during *inspiration*, the disparity increasing with the size of the wound.

A smaller wound causes a greater degree of inflation during *inspiration* and a less degree during *expiration*, the disparity increasing in proportion to the diminution of the wound.

Complete collapse can occur only when the wound is very large, or when it has become entirely closed.

In the former case, it continues only during *inspiration;* in the latter, only during *expiration*.

These conclusions do not apply to those cases in which the wound has a valvular character, nor, without modification, to those in which air is escaping from a wounded lung into the pleural cavity.

A wound in the thorax which affords greater facility for the *entrance* than for the *exit* of air, will cause an accumulation within the pleura, and consequently pressure upon the lung, and a greater or less degree of collapse. On the other hand, a valvular wound which favors the *egress* rather than the ingress of the air, will tend to a greater degree of inflation of the lung.

When the lung itself is wounded, the effect upon the degree of collapse will depend upon the amount of air which escapes from the lung. Such wounds have always necessarily the action of a valve; the soft and elastic tissue of the lung permitting the wound to open when subjected to an outward pressure, but tending to close it when the direction of the pressure is reversed. Hence it must be very rare, indeed, that any air passes back into the lung. The effect of such wounds, therefore, must be to diminish the inflation of the lung, whether this takes place during inspiration or expiration.

A practical application of the principles we have been considering may, it appears to me, be made in cases of penetrating wounds of the chest, without injury to the lung, or in which the escape of air from the lung has ceased, and in which there is partial collapse.

In such cases I would attempt to re-inflate the lung by the following procedure: Covering the wound with the hand I would instruct the patient to make as full an inspiration as possible. This would of course partly distend the lung. Then closing the mouth and nostrils and uncovering the wound, I would direct the patient to make an expiratory effort. The air from the lung on the uninjured side being unable to escape by the trachea, would be forced into the collapsed lung and would still further inflate it, and by a few repetitions of these manœuvres, complete distention would be accomplished. The wound could then be permanently closed, and if the germs of general pleuritis were not already implanted, I think the prospect of speedy recovery would be greatly enhanced.

With these remarks concerning partial collapse of the lung, I proceed to the consideration of those cases in which the pleura is opened, but the lung remains in contact with the wall of the chest.

Some ten years ago I made a series of experiments upon animals with the view of observing the comparative force of the respiratory movements with different degrees of dyspnœa. Each experiment required that a small opening should be made into the thoracic cavity for the purpose of connecting it with a monometer, and I was surprised to find that in several instances no collapse of the lung occurred, while in other cases in which the conditions appeared to be precisely sim-

ilar, prompt subsidence took place. Being intent upon another subject of investigation at that time, I did not attempt to pursue the inquiry which this observation suggested. But in 1867, my attention having been called anew to the subject, I consulted all the writers within my reach, in search of an explanation, but, as I have already intimated, without success. I then decided upon an experimental inquiry. My first experiments were directed to ascertaining the manner in which the lung collapses when the chest is laid open.

A dog was killed by a blow on the head, and the trachea being opened a stop-cock was secured in it in such a manner as to control entirely the passage of air to or from the lungs. The stop-cock being closed, the chest was opened and the sternum removed so as to allow a full view of the lungs. On permitting the air to escape the lungs did not collapse from the surface towards the centre, as they do when removed from the chest and inflated, but they *retracted* with a gliding motion towards the spinal column, keeping their convex surface closely in contact with the internal surface of the wall of the chest. This gliding motion was evidently owing to the pressure of the atmosphere, which prevented a direct separation of the closely applied smooth and moist pleural surfaces. In the same way two smooth glass plates, when moistened and placed together, may easily be made to slide one upon the other, but cannot be directly separated without the use of considerable force, an observation made by all of us daily in the examination of wet preparations with the microscope.

Reflecting upon this it appeared to me evident that this peculiar retraction could take place only when the opening in the chest was so situated as to admit the air directly to the free edge of the lung, or of one of its lobes; for otherwise the lung could not retract without leaving a vacuum at its margin. To test this I procured another animal, and made an opening in one of the intercostal spaces, about opposite the centre of one of the pulmonary lobes. On opening the stop-cock the lung remained completely distended, only a cup-like depression formed in its surface, whose circumference corresponded with the margin of the wound. On making a second incision in the same intercostal space, but at the edge of the sternum, retraction at once took place, the surface of the lung passing in rapid review before the first opening, where it could be seen to keep itself closely applied to the wall of the chest.

On repeating this experiment I found that in every instance in which the opening was at or near the edge of a pulmonary lobe retraction took place, while, as a rule, if the wound was centrally situated with regard to the subjacent lobe, no retraction would occur.

This is illustrated by the contrivance which I hold in my hand. It consists of a hollow glass cylinder about two inches in diameter, closed at one end by a cork, through which is passed a small glass tube. Attached to the lower end of this tube, and hanging within the cylinder, is a small India-rubber bag. About the middle of the length of the cylinder is a small hole ground through the glass. The cylinder, when the lower end is closed with the hand, represents the cavity of the chest, the India-rubber bag, the lung, and the opening in the glass, a wound.

If now the bag, having its surface previously moistened, be inflated, it will occupy nearly the whole cavity of the cylinder. Closing the bottom of the latter with the palm of the hand, it will be seen that if there is a smooth surface of rubber pressing against the glass at the point of the opening, the bag will not collapse; but if a fold chances to come opposite that point, immediate collapse occurs.

If the experiment be tried with the rubber and glass in a state of dryness, collapse will take place as readily in the former case as in the latter.

In a few cases, however, in experiments on animals, I have seen the lung separate directly from the chest at the point of the wound, even when this was distant from the edge of the lobe. I can explain this only by assuming that in these cases the retractile power of the lung tissue was exceptionally great, or that, perhaps, the wound was too large in proportion to the continuous surface of lung to allow the necessary space around it for atmospheric adhesion.

When there is no collapse there is always a slight depression in the substance of the lung, corresponding to the wound. This is caused by the retraction of the small portion of lung substance which is no longer kept distended by the pressure from within, this having been neutralized by the admission of air to the surface. It would seem, at first sight, that this depression should go on increasing in circumference until the whole surface of the lobe was included. That such is not generally the case, seems to be due to the fact that this depression cannot go beyond a certain depth without putting upon the stretch portions of lung tissue which are firmly adherent by atmospheric pressure to points of the chest wall at a distance from the wound.

This may be illustrated by a modification of the leather disk, or "sucker," with which we were all familiar in our boyish days.

I have here such a disk, but instead of having one cord only, attached to the centre, it has a number of additional cords springing from different points of its surface, converging together and grasped by the hand as a single cord. The disk is perforated by a small hole near the centre. On moistening it and applying it to the table, it is seen that if traction is made on the central cord alone there will be no adhesion; while if traction is made upon all the cords alike, the opening in the centre seems to be without effect. The case is the same with the elastic fibres of the lung. Intermingling with each other as they do, and running in every conceivable direction, they cannot exert their retractile power upon any one portion of the surface of the lobe without involving at the same time other and distant portions.

I may remark that I have repeated these experiments on the human body with like results.

In the living animal the results were the same, except that the change in the relative position of the lung and the chest wall due to the respiratory movements often produced the conditions necessary for collapse, when they would not have occurred had breathing been suspended. Except in such cases, the movements of respiration would tend to aid the atmospheric adhesion in preventing collapse, as we have already seen.

If we admit that the same results which are observed in carefully performed experiments may attend the casualties by which the chest is opened, the importance of these observations in determining the prognosis of such wounds is at once obvious. For if the lung can be kept distended for a very brief period adhesion of the pleural surfaces will take place around the wound, and all further danger of the entrance of air will be averted. The patient will thus escape the dyspnœa consequent upon collapse of the lung, and also the train of evils resulting from the admission of air to the pleural surfaces.

I can perceive no reason why this principle should not be applicable when the lung also is wounded, provided that the relative position of the wound of the lung and that of the chest does not alter too much with the movements of respiration. This will depend in a great measure upon the location of the wound, the movement of the two pleural surfaces upon each other

being greater as we proceed from above downward, owing to the action of the diaphragm. It is plain that if the air which is forced out of the lung during expiration does not at once escape through the external wound partial collapse must follow.

It is a source of great regret to me that these experiments were not undertaken before the close of our late war, as during its continuance I could have had abundant opportunity to test the correctness of my views by clinical observations.

I remember one case, however, which, as I now recall it, seems to afford strong presumptive evidence that the termination of a penetrating wound of the chest may depend upon the principles we have just been considering.

A private of the 43d Regt. N. Y. Volunteers, was wounded while on picket in front of Yorktown, about the 25th of April, 1862. The missile was a musket ball, which entered in front on the right side of the thorax, between the second and third ribs, and emerged through the centre of the scapula, not injuring the ribs either at the point of entrance or of exit. There was considerable hemorrhage both from the wound and by the mouth, and the shock was very great. There was no collapse of the lung. The patient rallied well, and on the ninth day was removed a distance of ten miles to Yorktown, and soon after sent North. In the latter part of June, about two months after the receipt of the wound, I met him in the street in New York. The wound had entirely healed, and he was feeling nearly as well as ever.

Now it is, of course, possible that old pleuritic adhesions existed at the points of entrance and exit of the ball, but this is less likely to have been the case, as the patient was young, not more than 18 or 19 years of age. Moreover, as the situation of the wound was distant from the margin of the upper lobe of the lung, I think it in the highest degree probable that the non-collapse of the lung, and *pro tanto* the recovery of the patient, were due to the situation of the wound.

Before concluding, I desire to express my obligations to Dr. Weir of this city, for his valuable assistance, not only in some of the experiments upon which my conclusions are founded, but also in my researches into the literature of the subject.

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LECTURES ON

THE GALVANIC CURRENT IN ITS RELATION TO PHYSIOLOGY, MEDICINE, AND SURGERY,

BEING AN INTRODUCTION TO SCIENTIFIC ELECTRO-THERAPEUTICS.

By WM. B. NEFTEL, M.D.,

NEW YORK.

"Thus, from the depths of the waters, bursts forth the electric fire. That which is the invisible, living weapon of these inhabitants of the deep (electric fishes); that which, awakened by the contact of moist and heterogeneous parts, pervades all organs of animals and plants; that which, thundering, inflames the broad canopy of heaven, which binds iron to iron, and directs the silent ever-returning course of the guiding needle—all, like the colors of the divided ray of light, flow from one source; all blend together in one eternal, illimitable Force." —*Alexander von Humboldt.*

LECTURE I.

Given before the New York Medical Journal Association, October 22, 1869.

Part I.—Historical.

Mr. President and Gentlemen—Before considering the practical application of the galvanic current, I think it necessary to pass in rapid review the fundamental laws of electro-physiology, the knowledge of which chiefly distinguishes the educated physician from the rough empiricist, and must be the starting point for all further advance in this important branch of medical science.

In bringing before you the result of electrical experiments on animals, I need not advocate their importance, since we all know how an apparently simple observation made by a physician on a frog has led to the greatest discoveries, has revolutionized the whole world, and has done perhaps more than any historical event towards the progress of civilization and the prosperity of mankind. It is impossible to read without a feeling of profound admiration Galvani's own plain and unpretending narrative of this immortal observation:

"Ranam dissecui, atque praeparavi ut in figura,—eamque in tabula, omnia mihi alia proponens, in qua erat machina electrica, collocavi ab ejus conductore penitus sejunctam, atque haud brevi intervallo dissitam; dum scalpelli cuspidem unus ex iis qui mihi operam dabant, cruralibus hujus ranae internis nervis casu vel leviter admoveret, continuo omnes artuum musculi ita contrahi visi sunt, ut in vehementiores incidisse tonicas convulsiones viderentur. Eorum vere alter qui nobis electricitatem tentantibus praesto erat, animadvertere sibi visus est, rem contingere dum ex conductore machinae scintilla extorqueretur. Rei novitatem ille admiratus, de eadem statim me alia omnino molientem ac mecum ipso cogitantem admonuit. Hic ego incredibili sum studio, et cupiditate incensus idem experiundi, et quod occultum in re esset in lucem proferendi," &c.

Galvani had made the observation in 1780, but published it only in 1791 in his famous work: *De Viribus Electricitatis in Motu Musculari Commentarius.** The explanation of this phenomenon is now obvious to every one; it depends upon the distribution, through the influence of the charged conductor, of free electricity in the prepared frog, and upon the returning stroke which calls forth the contractions at every discharge of the conductor. But at that time Galvani was very much surprised to find the electricity of the machine affecting the frog without any apparent connection between them, although the fact that dead frogs contract under the influence of electricity has long ago been known to naturalists. The great Swammerdam, by his Historia ranarum (*Biblia Naturae*, 1658), gave to physiology the most important object for its researches—the frog, which, to his misfortune, says Humboldt, has since attracted the principal attention of physiologists.

After having repeated and modified in various ways his first experiment, Galvani proceeds to test the action of atmospheric electricity upon muscular contractions, and instead of the artificial spark from the electrical machine, brings the lightning to act upon the prepared frog. He ascertains that muscular contractions are isochronous with lightning and precede thunder, and whilst the spark produces but a single contraction, the lightning calls forth several consecutive ones. Pursuing a series of these experiments, he makes the startling observation which was destined to lay the basis of the modern doctrine of Galvanism. Suspending on a September evening, 1786, to the iron-railing of his terrace, a prepared frog by a metallic hook, passed through its spine, Galvani perceives that

* Of all the most important works belonging to the earliest literature of galvanism, I could find in New York but the works of Volta: *Collezione dell' Opere Cavaliere conte Alessandro Volta.* Firenze, MDCCCXVI.; and A. von Humboldt's *Versuche über die gereizte Muskel und Nervenfaser.* Posen & Berlin, 1797. The Astor Library possesses not a single work of Galvani, not even the beautiful edition of 1841, Bologna: *Opere edite ed inedite del Professore Luigi Galvani raccolte e publicate per cura dell' Academia delle Scienze dell' Instituto di Bologna;* nor the important works of Ritter, Pfaff, Nobili, and others.

every time the frog touches the iron railing, sudden contractions of the limbs follow,* and that to call forth these contractions the arc connecting the nerve with the muscle must be a conductor of electricity—a metal, especially one composed of two heterogeneous metals. The contractions can be produced under water, but not under oily substances; and all animal parts are conductors, though perhaps only through their moisture. These experiments, moreover, succeed not only in frogs, but in birds, mammalia, and other animals, and are much influenced by different conditions—age and health of the animal, season of the year, &c. Animal parts exhausted by experimentation recover their irritability by repose.†

From these and other observations which are by themselves correct, Galvani constructed a bold theory, the greatest part of which certainly could not stand the test of subsequent critical researches. He thought that animals possess a peculiar independent electricity. that deserves the name of animal electricity; the nerves are the organs in which it particularly acts, and through which it is communicated to the whole system, and the brain is its principal secreting organ. The internal substance of the nerves is a good conductor of electricity, whereas their external oily covering prevents its dispersion and admits of its accumulation. The chief reservoirs of the animal electricity are the muscles representing, as it were, a Leyden jar; internally, where the electricity accumulates, they are positive, and on their external surface negative. The nerve is the conductor of the jar, and charges the muscle with electricity. Finally, the mechanism of all motion consists in the drawing of the electric fluid from the interior of the muscles into the nerves, whence it flows over to the external surface of the muscles. Every contraction, therefore, is caused by a discharge of the muscular Leyden jar;‡ these contractions being the consequence of the irritation produced in the irritable muscular fibres by the electricity overflowing to the external muscular surface.

Galvani's researches aroused the greatest excitement among scientific men. It being just at the time of great discoveries and reforms, all minds were prepared to find the solution of the most inexplicable problems—all hoped to see realized their favorite dream of the identity of vital force and electricity. Physicists, physiologists, physicians, directed their attention to Galvani's discoveries. Even the great Volta, already celebrated for his classical researches on the Electrophorus and Condenser,§ concentrated his whole genius upon the study of these wonderful phenomena. As Galvani asserted that his frog-preparation is the most sensitive electroscope, Volta at once proceeds to determine how great is its sensitiveness, and shows that it gets convulsed by a charge of the Leyden jar, amounting to 0.1 of Bennett's gold-leaf electroscope, and that this can only be demonstrated and measured by means of his Condenser. He then repeats Galvani's experiments, and though at first inclined to admit his theory, yet accustomed to exact observations, he soon comes to quite different conclusions. Volta finds, contrary to Galvani, that the electricity of the nerve is negative, and that of the muscular surface positive. He finds further that contractions can be obtained through the nerve alone; hence the muscular contraction is nothing else than a consequence of the direct excitation of the nervous force. Noticing in this last experiment that contraction can be produced only with heterogeneous metals, he at once perceives the importance of heterogeneousness in all these phenomena, and wishes to ascertain its effect on the living animals. Considering the tongue (a voluntary muscle, covered with a thin, moist membrane) to be analogous to a living uninjured frog, he applies, standing before a mirror, tin foil to one surface of his tongue, and a silver spoon to the other, and connects them together. But to his astonishment, instead of the expected muscular contraction, he observes a peculiar taste lasting all the time the metals remain connected, and on changing the relative places of the metals the character of the taste also changes from acid to alkaline. He then concludes that the combination of heterogeneous metals not only produces contractions, but also influences the sensitive nerves, and that the effect of heterogeneous metals is not an instantaneous discharge, but a continuous one, lasting as long as the metals remain in contact with each other.* In the same way Volta observed that by arming the eye with heterogeneous metals, a continuous perception of light is produced.

Then it became evident to him that these phenomena have nothing to do with animal electricity, but are simply the effect of the action of heterogeneous metals, or as he calls it, of metallic electricity. Having demonstrated before, that even homogeneous metals act as heterogeneous as soon as they differ in hardness, polish, temperature, &c., it was easy to explain the galvanic phenomena produced with one metal.

The cause of Galvani's doctrine of animal electricity was now apparently hopeless, but he makes incessant strenuous efforts, and succeeds in producing muscular contractions without a metal; and this is certainly the fundamental experiment of animal electricity. Cutting the sciatic nerve near the spine, without dipping it into any liquid or exposing it to any influence, he brings it to touch slightly a single point of the muscle, and the limb becomes convulsed. These experiments, of which Galvani made a great variety, and always with the same result, seemed again to re-establish the existence of animal electricity, though its triumph was to have but a short duration. In the history of science we scarcely know of a genius so diversified as that of Volta. Unsurpassed in his wonderful talent of elucidating the most complicated phenomena, he possessed a boldness of invention bound only by the strictest method, and the profoundness of a great thinker added to a masterly eloquence and the skill of a mechanic. Every opposition called forth on his part brilliant new discoveries, by which even the advantages gained by his opponents were turned against them. Already had he revealed his series of tension, establishing the electromotor relation of the different conductors of the first class (metals and carbon); now he teaches that conductors of the second class, moist conductors, including the animal parts, possess also electromotor power, although in an infinitely less degree, and therefore the galvanic contractions

* "Ranas itaque consueto more uncino ferreo earum spinali medulla perforata atque appensa, Septembris initio (1786) die vesperascente supra parapetto horizontaliter collocavimus. Uncinus ferream laminam tangebat; en motus in rana spontanei, varii haud infrequentes! Si digito uncinulum adversus ferream superficiem premeretur, quiescentes excitabantur, et toties ferme quoties hujusmodi pressio adhiberetur."

† E. du Bois-Reymond: *Untersuchungen über thierische Elektricität.* 2 Bde. Berlin, 1848–60. Bd. I. p. 46 et seq.

Galvani prepared his frogs in the following way: The lower extremities of a freshly killed and skinned frog are so dissected from the trunk as to be left in connection with a part of the lumbar vertebral column only by means of the sciatic nerves.

‡ E. du Bois-Reymond: op. cit. Bd. I. p. 49.

§ Volta: *Collez. dell' Opere, &c.*, tom. I. pp. 106, 221.

* Quite a similar observation with a combination of lead and silver, applied to the tongue, had been made in Berlin in 1752, by Sulzer, and was therefore the first galvanic experiment. Sulzer ascribed the taste to a vibration produced by the metallic junction which affected the nerve: it was reserved to Volta to give to the old experiment its true explanation.

without metals are explained simply by the contact of heterogeneous animal parts (nerve, muscle, tendon), aided by the intervention of a third moist conductor (blood, mucous or saline fluids, &c.).

It would take too much of your time were I to dwell upon the interesting and instructive details of the struggle between Volta and the school of Bologna until the final triumph of the former, so admirably described in Du Bois-Reymond's *Researches in Animal Electricity*.

The wonderful investigations of Volta, the inexorable enemy of animal electricity, and especially his immortal discovery of the pile, fascinated the whole attention of the scientific world, and threw into oblivion for half a century the theory of animal electricity. The heroic Galvani, though sick and suffering continued alone with an unyielding ardor the defence of his doctrine, invented some ingenious experiments (amongst them the one to be regarded as the fundamental experiment on electricity of the nerves), and made at the shores of the Adriatic most important researches on the torpedo. He died on the 4th of December, 1798. After his death, only a few followers of animal electricity were to be found in Italy, but it had some zealous advocates remaining in Germany. In 1797 Alexander von Humboldt published his famous researches,* which even now are read with the greatest interest, and will remain for ever a model of exactness, lucidity of exposition, and profound learning. He powerfully supports Galvani's doctrine by showing conclusively the source of electricity to be in the frog-preparation itself, and eliminating every suspicion of mechanical irritation, heterogeneity, &c.

At the same time, near the end of the last century, and on the same field, appears another investigator, the young physicist Ritter. He had most arduously devoted himself to galvanic researches, instituting innumerable experiments on animals, and quite heroic, suicidal ones on himself. Of his discoveries we shall here mention only the modifications of irritability by the constant current, as this and the discovery of the law of contractions by Pfaff belong to the most important discoveries in electro-physiology.

In the present century electric phenomena have often been observed as well in plants as in animals.† Pouillet noticed them in plants during the process of germination; Donné observed electrical currents in apples, pears, peaches, plums, and other fruits, flowing in the direction of their axis; and James Blake found the same in fluids undergoing fermentation.

Statical electrical phenomena had already been observed in the living body before the discovery of galvanism, the most authentic observations of this kind having been made by Pfaff and Ahrens in 1817. Insulating a person, his free electricity was determined by means of the gold-leaf electroscope and condenser, and in the healthy condition was generally found positive. These and similar experiments are almost worthless, as they cannot explain the source of the free electricity, or lead to any further physiological conclusion.

But extremely important are the electro-chemical currents between acid and alkaline secretory organs, discovered in 1834 by Donné. He showed that strong currents are obtained by applying the homogeneous platinum ends of a multiplicator to chemically different secretory organs, for instance, to the skin and mucous membrane, to the stomach and liver, &c.‡ These currents, however, are not of an animal electrical origin, but simply analogous to those of Becquerel's acid-alkali elements.

In 1827, Nobili, the great Italian physicist, discovered, by means of his improved multiplicator, a continuous current flowing from the feet to the head, in the frog prepared by Galvani's method, and called it the proper current of the frog. This continuous current is quite independent of the property of the frog-preparation to contract at the closing of a circuit; but Nobili, under the influence of the reigning prejudices, considered it not a vital phenomenon, but one dependent upon the physical conditions of the prepared frog, and believed it to be of a thermo-electric origin. He also considered the frog-preparation as the most sensitive galvanoscope.

In 1837, Matteucci* began his numerous researches in animal electricity; but, owing to his very inexact methods, obtained mere negative results, with the exception of one important conclusion which he arrived at, that the frog-current does not depend upon the closing of a circuit between the muscle and nerve, but that any two points taken in the longitudinal direction will give a continuous current.

Impartially analyzing Galvani's experiments and doctrine, it becomes evident that they embrace two distinct questions, which both he and Volta confounded together, though each from a different point of view. The answer to the one regarding the contractions ensuing in consequence of the contact of two heterogeneous metals, has been perfectly given by Volta, and constitutes the doctrine of galvanism. The solution of the other, regarding the phenomena of contractions without metals, has been given only half a century later, by Du Bois-Reymond, and is the modern doctrine of animal electricity.

Du Bois-Reymond has realized, although in a somewhat modified form, the vague conceptions of an identity between the nervous principle and electricity. He has shown the existence of electric currents, deflecting the needle of a sensitive multiplicator, in every part of the nervous system, as well as in all the muscles, of every animal; he has demonstrated that these electric currents undergo certain changes in the motor and sensitive nerves during innervation, and in the muscles during contraction; he has found these same electric currents, with their changes during functional activity, in the living uninjured animal and in man, and proved that they are essential vital manifestations; he has finally given a most ingenious hypothesis by means of which these and other phenomena (those of the electrical fishes) are satisfactorily explained.

The phenomena of animal electricity are so complicated, their investigation demands so much circumspection, dexterity, and perseverance, that a genius like that of Du Bois-Reymond was alone adequate to the task. An excellent mathematician, anatomist, and physiologist, he undertook this enormous labor, and with a masterhand removed its most insurmountable difficulties. He had to establish new methods, invent new apparatus, and even widen the domain of physical science. By his great work, *Researches in Animal Electricity*, the reader of which must be himself familiar with mathematics and physics, he has created one of the exactest departments of physiology, or, as he himself styles it, the muscular and nervous physics.

Some very brilliant discoveries of Helmholz belong to this department, as also the excellent investigations of Valentin, Eckhard, Pflüger, Heidenhain, Rosenthal, Bezold, Fick, Wundt, Ranke, and others.

(To be continued.)

* Alexander von Humboldt: *Versuche über die gereizte Muskel- und Nervenfaser.* Posen & Berlin, 1797.

† Becquerel: *Traité expérimental de l'Electricité et du Magnétisme.* Paris: 1886. t. iv., p. 169.

‡ Op. cit., t. iv., p. 261.

* Matteucci: *Essai sur les Phénomènes Electriques des Animaux.* Paris: 1840. *Traité des Phénomènes Electro-physiologiques des Animaux.* Paris: 1844.

Progress of Medical Science.

A New Lesion in Bright's Disease.—Gouverneur M. Smith, M.D., Attending Physician to New York Hospital, calls attentien to *deafness*, which is sometimes developed during the course of Bright's Disease. This symptom, when transient and accompanying a lethargic condition of the patient, has been properly attributed to uræmia. The same symptom, however, in conjunction with others, aural in character, may be permanent, in which case he ascribes their occurrence to a peculiar *lesion of the ear;* a lesion peculiar in that it holds a relationship to the nephritic disorder, and is not, so to speak, of accidental origin.

Is it not proper to view the association of the *aural and nephritic lesions* in the same light as we regard the occasional co-existence of the ocular and renal?

He would ask the attention of those surgeons who are making aural affections a special study, to the opinion just expressed in reference to a Brightian lesion of the ear. It would seem desirable, when treating patients affected with obscure auditory diseases, to examine their urine both chemically and microscopically. A latent Bright's Disease may thus be detected, and the cause of the aural malady thus be explained.

Ammoniacal Extract of Valerian.—M. Dauvenay (*Chem. Gazette*) has introduced into pharmacy an extract of valerian prepared with ammoniacal alcohol, which he names "Le valérianate extractif d'ammoniaque." The extract is administered in gelatinous capsules, each containing five decigrammes (7·7 grains).

The Irish Physicians on the Treatment of Acute Rheumatism.—In the May number of the *Dublin Quarterly* two eminent practitioners publish their experience in the treatment of acute rheumatism.

Dr. Thomas E. Beatty was afflicted with this affection in the year 1823, the next in 1826, another in 1828, then in 1836, the next in 1841, followed by another in 1843, after which came one in 1851, and the last was in 1864. During these attacks he had the care and attendance of the most eminent physicians in Dublin, and once, in 1826, Dr. Stock, of Clifton, took charge of him. A variety of treatment, of course, was adopted, but sad experience compels him to say that in no instance did medicine appear to have any effect in controlling or shortening the disease. He escaped any threatening of cardiac disease. The greatest relief was found in having the joint enveloped in a thick layer of raw cotton completely covered by oiled silk. Opiates at night to procure sleep, and the cotton and oiled silk, were what he derived most benefit from. In his own practice, the most rapid recoveries seen in young persons were from the free use of lemon juice, from one to two ounces of which were given every third or fourth hour.

Dr. William Stokes has long disbelieved in the efficacy of any of the proposed specific treatments for acute rheumatism or rheumatic fever, including mercury, opium in large doses, colchicum, bark, alkalies, and acids. The disease, like continued fever, will run its course, and we are to support the strength and alleviate pain, and employ tonics in the advanced stages. Some of the most protracted convalescences he has seen were in cases in which, as was the practice long ago, the patients were, at an early period, brought under the influence of mercury.

Liquor Ammoniæ Fortis for Snake-Bites.—This solution should be given in the following doses: For an adult, 35 drops in 4½ tolas of water (a wineglass ful); 12 to 15 years old, 20 to 25 drops in 2½ ditto; 8 to 12 years old, 15 to 20 drops in 2 ditto; 4 to 8 years old, 10 to 15 drops in 1½ ditto; infants to 4 years old, 3 to 10 drops in 1½ ditto.—*Lond. Jour. of Pharmacy.*

Atropia as an Antidote to Opium Poisoning.—H. A. Mayfield, M.D. (*Med. Archives*), reported to the Pettis County Medical Society the subjoined history of a case showing the value of belladonna as an antidote to poisoning by opium: A German woman had a son seventeen months of age, suffering from diarrhœa, to whom a teaspoonful of tincture of opium was given by mistake. In thirty or forty minutes the poisonous effects of the opium began to be manifested, and Dr. M. was called to see the child. Reaching the patient he found the lips purple; respiration seven per minute; scarcely any pulse at the wrist; but one sound of the heart; pupils contracted to a firm point; frothing at the mouth; extremities cold; and all probabilities that the child would die in a spasm, there being strong symptoms in that direction. Fortunately the power of deglutition remained.

He administered forthwith tincture belladonna ℥ ss., but not feeling satisfied that the tincture could be relied upon, an aqueous solution from the solid extract was prepared, of which he gave ½ gr. doses at intervals of ten minutes until the equivalent of one grain and a half of the solid extract had been administered; after which the pupils began to dilate, and the remedy was discontinued. Very soon after the dilatation began the respiration improved, becoming more frequent, and in fifteen or twenty minutes from the time the dilatation was first observed had reached fifteen per minute, and as a natural consequence the circulation improved rapidly. The other symptoms disappeared in proportion to the improvement in respiration and circulation.

The patient was kept from going to sleep, but with very great effort upon the part of the nurse, by flagellation and cold water sprinkled on the face. An injection was administered with a view of unloading the bowels, after which repeated injections were given of warm water and brandy. A strong infusion of coffee was also given as often as the child could be forced to swallow it. It being the first instance of his using the antidote was the reason that other remedies were used; yet he thinks he is safe in stating that the belladonna was the chief agent in relieving the patient.

In six hours after the treatment began the patient was out of all danger, except such as might arise from the effects of the belladonna. Respiration was nearly natural, being eighteen per minute; circulation good; pupils dilated to their utmost capacity. No poisonous effects of the remedy followed nor any unpleasant symptoms, the child being able to run around the room the same evening. He is thoroughly convinced that the case would have died under the ordinary treatment of infusion of coffee, green tea, nut-galls, bromine, chlorine, artificial respiration, electricity, etc., and believes that further experience will develop the fact that belladonna is more valuable as an antidote to opium poisoning than all other remedies combined.

Phosphate of Soda.—Dr. W. Stephenson, of Edinburgh, and medical practitioners generally, speak highly of phosphate of soda in the derangement of children's bowels. The dose for children is four to ten grains in the food; for adults, 20 to 40 grains in water, and taken at meals.

A Paste without Fermentation.—Dissolve an ounce of alum in a quart of warm water; when cold add as much flour as will give it the consistence of cream. Then strew into it as much powdered rosin as will lie on a shilling, and two or three cloves, ground.

It will keep for a year without fermentation, and when dry may be softened with water.—*Medical and Surgical Reporter.*

PECULIAR TREATMENT OF OVARIAN DROPSY.—Dr. Bezencenet mentioned, at a meeting of the Vaudian Medical Society (as stated in *L'Union Medicale* of the 24th of August, 1869), the case of a woman suffering from ovarian dropsy, who had been tapped several times. In a drunken fit, her husband kicked her, and ruptured the cyst. Slight peritonitis followed, the liquid was soon absorbed, and the tumor disappeared.

QUININE IN SEPTICÆMIA, &c.—It counteracts septicæmia and the abnormal immigration of blood-globules in raw or exposed membranous or parenchymatous organs. It stops the movement of the white corpuscles; prevents the increase or new formation of cells, and exerts a controlling influence over dilatations of the blood-vessels.—*Schmidt's Jahrbücher.*

DANGER OF GIVING STRONG DOSES OF CAMPHOR.—A case illustrating the above has recently been brought under the notice of the Société de Medecine et de Pharmacie de Grenoble. An enema consisting of five grammes of camphor dissolved in the yolk of an egg, was given to a child three years of age, suffering from typhoid fever. Symptoms of poisoning at once manifested themselves; convulsions, lividity of the countenance, stupor, arrest of the urinary secretion, &c. The employment of coffee sufficed to restore the child.

HYDATID CYST IN THE BRAIN.—The patient, a female, had suffered first from intense headache. At the end of ten months her mind became feeble; later, vomiting set in of a distressing character, then difficulty in swallowing, retention of urine, and paralysis of the sphincter ani; and for five months before death, complete paralysis of the left side, dyspnœa, and feebleness of sight—first of the right eye, then of the left. After death a large hydatid cyst was found, occupying the whole of the anterior lobe of the brain.—*Med. Press and Circular.*

CHLORAL.—Dr. O. Liebrich's recent paper at the Paris Academy of Sciences on the action of *Chloral* says it is a trichloride of aldehyde, and is soluble in water, and as in this solution it exercises no irritant effect, it is very suitable for absorption into the economy. It takes its place between ether and chloroform as an anæsthetic.

Experiments made on rabbits have given the most satisfactory results. Profound and calm sleep has been maintained for eight or ten hours, and Dr. Liebrich adds that the rabbits on awakening manifested none of the usual results, and have proceeded to eat with avidity.

ACONITE IN TETANUS.—The celebrated Professor Wunderlich reports two cases, one traumatic, the other spontaneous, cured by aconite, in doses of from five to ten drops, from two to four times a day. On the 11th day (in the traumatic case), after twenty-four grammes of the tincture had been used, a cure was effected. In the idiopathic case the treatment was not commenced until the thirteenth day, when five drops, ter die, were given. The improvement was very marked on the second day, and a cure followed after eleven grammes of the tincture had been used. Wunderlich regarded the cases as severe.—*Schmidt Jahrb.*

SYRUP OF SUPERPHOSPHATE OF IRON PREFERABLE.—The principal advantage of the syrup of superphosphate of iron over that of the phosphate is, that the former has none of that disagreeable, metallic, or inky taste which is common to most of the other salts of iron. It is made by dissolving to saturation the simple phosphate of iron, as prepared by the American formula, and represented by $2\ FeOHO,PO_5$, in a boiling solution of metaphosphoric acid, $HO\ PO_5$. This is dissolved in simple syrup, in the proportion of five grains to the fluid drachm, or forty grains to the ounce.—*Jour. of Applied Chemistry.*

ALBUMEN IN THE URINE A FAVORABLE SYMPTOM IN BRIGHT'S DISEASE.—Dr. Gouverneur M. Smith, of New York, is led to believe from clinical experience, that in Bright's Disease, if the patient is threatened with uræmia, it is a favorable symptom if the urine is heavily loaded with albumen; a principle is rejected, which, if retained, would indirectly augment the toxæmia.

It is a simpler process to passively exude this protein compound than to assimilate it, and subsequently transform tissue into excrementitious material, which the kidneys, in their diseased condition, would be unable entirely to remove.

The escape of albumen from the blood into the renal secretion may be due to mechanical causes; but nature is, to a certain extent, so conservative in her processes that we may at times regard the transudation as salutary. There may be hydræmic conditions in which a drain of albumen from the blood is pernicious: but in the statement just made he refers to albuminuria as it occurs under certain conditions in Bright's Disease.

Dr. S. would not convey the idea that the loss of albumen is always desirable; on the contrary, the loss of this principle may be finally injurious. Impoverishment of the blood may prove one of the causes of amyloid degeneration. Certain forms of diarrhœa may be productive of favorable results; if, however, they are unrestrained by nature or by artificial means, they may be productive of evil consequences. A similar view may be taken in regard to albuminuria—in some instances it may be beneficial, in others the reverse.

CALORIFIC AND MOTIVE POWERS OF TEN GRAINS OF THE FOLLOWING SUBSTANCES.

	Lbs. of water raised 1° F.	Lbs. lifted 1 ft. high.
Grape Sugar	8.4	6.477
Lump Sugar	8.6	6.617
Arrowroot	10.0	7 731
Butter	18.6	14 358
Beef Fat	20.9	16.131

So that, in round numbers, the calorific power of fat is about twice as great as that of starch and sugar, and when dry it is twice and a half as great.

PERCENTAGE COMPOSITION OF THE MINERAL MATTERS OF BLOOD.—Dr. Letheby (*Chem. News*), in the Cantor Lectures, gives the following analysis of the blood:

	Man.	Pig.	Dog.	Fowl.	Sheep.	Ox.
Phosphoric Acid	31.79	36.50	36.82	47.26	14.80	14.04
Alkalies	55.66	49.80	55.24	48.41	55.79	60.00
Alkaline Earths	8.38	3.80	2.07	2.22	4.87	3.64
Mineral Acids and Oxide of Iron	9.22	9.90	5.87	2.11	24.54	22.32
Total	100.00	100.00	100.00	100.00	100.00	100.00

CHROMIC ACID.—This acid, of all the caustics, is the least painful. It is applicable for the removal of morbid growths or excrescences. Not painful, and not liable to spread like most caustics. Cancroid excrescences on or near the os uteri are often destroyed by its application.

THE USEFULNESS OF SALT.—Dr. Le Saine, in his prize essay on salt, says salt increases the fertility of the male and the fecundity of the female, and it doubles the power of nourishing the fœtus.

THE MEDICAL RECORD.

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GEORGE F. SHRADY, M.D., EDITOR.

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New York, November 15, 1869.

OUR SOCIETIES.

IN respect to Medical Societies the City of New York has not a few of which she may well be proud. At this time, when all the leading organizations are in successful operation and well patronized, it is not inappropriate to glance at the means which have brought about this end.

There are many reasons why our societies have been prosperous, but we shall only refer to the prominent ones. In the first place, we have learned to devote the time of the meetings to strictly scientific and practical discussions. The parliamentarians in our ranks have become modest, and find that they do not meet with as much favor as formerly in quarrelling over points of order. If any one doubts the pernicious influence which such a practice may have, he has only to recall a portion of the past history of the New York Academy of Medicine. It is well known that many a time within the last fifteen years, the regular speaker has been crowded out of the rostrum by these windy debaters. At one time it seemed as if it were more necessary for a Fellow to be booked up on Cushing's Manual than to know his anatomy. A timely change in the constitution, creating an executive committee for the Academy, ruled out the discussions in open session, and saved the society from utter ruin. Contrast in this respect the history of the latter association with the New York Pathological Society, which, without detraction from the others, may be styled the model scientific body of the metropolis. For nearly thirty years it has held regular meetings, which have been well attended; and all the pure business has been satisfactorily transacted in very short executive sessions.

While speaking of the New York Pathological Society, another reason for its success brings us to refer to another point. There is no doubt that the regular reporting of its proceedings in the different medical journals of the time has done more than anything else to create among its members an interest in its proceedings. This publication, with very few exceptions, has been regularly done for the last fifteen years or more in the *New York Journal of Medicine*, the *American Medical Times*, and now in the MEDICAL RECORD. One thing can with truth be said of this society in respect to its proceedings, that the reason why they are always published is, that they are always worth publishing. Here, again, we may contrast the policy of the Academy with that of the society just named. The former very unwisely concluded that full reports should only appear in its own official vehicles, the Transactions of the Academy or the Academy Bulletin, and as those were only to be circulated for the use of the members, it soon grew to be a close corporation. At one time, if any journal desired to publish a full report of some important discussion, it had to wait until the Bulletin appeared (which was not unfrequently a month afterwards), when the gracious privilege of quoting from the said publication was allowed. If at any time a good report was surreptitiously obtained, it brought with it an indignant protest from the Academy, the only care of the authorities being that the interest in the Bulletin should not be destroyed. One of the consequences of this was, that the journals ceased to annoy the authorities with requests for permission to publish the proceedings, and very many valuable papers soon found other channels than the Academy for communication with the public. We speak thus freely of the Academy, because we are happy to say that the authorities are converted to a different opinion, and do not intend to place a barrier against the publication of the proceedings in future. As an earnest of this conversion we have given in the last, and also in the present number, a commencement of our reports. These we propose to keep up regularly, and it is to be hoped that those members who wish to speak to a large audience through the RECORD will take care to do the Academy and themselves credit. There is no reason why the Academy should not take the lead of all the societies; it has the proper working material in its ranks, and is under the control of officers who have given ample evidence of their efficiency and fitness.

Another element of success in a society is a punctual and working presiding officer. It should be the business of the chairman to present an attractive programme to the members, and never have a meeting announced without a promise beforehand that something definite is to be done. Show us a good working president, and we will show you a good working society. A triumphant indication of the truth of this is seen in the past and present success of the Medical Society of the County of New York, which has through its various chairmen been actually regenerated; and in the present flourishing condition of the New York Medical Journal Association. It may not be out of place to mention in this connection that both of these institutions have for some time past been extensively published.

The profession of New York have reason to congratulate themselves upon the number of societies that are now kept in good working condition. There is room for all, and there is enough of brains to keep up the in-

terest in all. Each one has a position and reputation of its own, and each, with a pleasant rivalry, must strive to add to it. The venerable Academy has risen from her sleep to grasp her sceptre, the County Society is pushing onward in its new and glorious career, the Journal Association coaxes the crowds to its entertaining and instructive reunions; the East River Association and the Medico-Legal Society, with the vigor of youth and a determination of purpose for good, respectively supply a want long felt; and the Pathological never begs for a specimen, and is never without a quorum.

There are other organizations which might be made of great use to the profession at large, if they could be persuaded to profit by the hints thrown out, especially those referring to the publication of their proceedings. The medical public would then know the Medical and Surgical Society and the New York Obstetrical Society by something more than their respective names. Let us hope that these excellent organizations will follow in the footsteps of the Academy, and do that amount of good which the high standing of their members leads the profession to expect.

Reviews and Notices of Books.

THE MECHANISM OF DISLOCATIONS AND FRACTURES OF THE HIP. With the Reduction of the Dislocations by the Flexion Method. By HENRY T. BIGELOW, M.D., etc. Phila.: Henry C. Lea, 1869. 8vo. pp. 150.

WE consider this work of Professor Bigelow as constituting a very important and valuable addition to the anatomy, physiology, and pathology of the hip-joint. The method of reduction of dislocations of the hip by *flexion*, has been generally known and practised by surgeons both at home and abroad for several years past, and although the rules of proceeding have been clearly laid down, the principles and mechanism involved have not been perhaps so well understood or explained. For example, Dr. Nathan R. Smith recognizes muscular contraction as the chief agent in effecting both dislocation of the hip and its reduction; and Dr. Reid of Rochester, who next to Dr. Nathan Smith seems to have adopted this method, remarks, that "the chief impediment in the reduction of dislocation of the hip, is the *indirect action of muscles* that are put upon the stretch by the malposition of the dislocated bone—the limb or bone should be drawn in the direction which will relax the distended muscles." (*Trans. N. Y. Med. Soc.*, 1852, p. 41.) The English and French surgical writers, generally, have taken the same views: others, however, have recognized the resistance to the reduction of dislocation as *ligamentous* and *capsular*, without identifying or specifying the particular ligaments involved.

In luxation as well as in fracture, as Professor Bigelow remarks, there is no doubt that the muscles soon contract and adapt themselves to the new condition of things, so that the limb is steadied partly by the effort of the patient. In those luxations of the hip, for example, which exhibit great flexion, the muscles may thus contribute, when the patient is standing, to support the limb in a flexed position, while its own weight tends to straighten it: they may even help to convert a dislocation below the socket into one upon the dorsum, or into the foramen ovale,—or they may assist simply to reduce it. But there is no evidence that dislocations below the socket are capable of retaining their distinctive features, in an erect posture of the body, when the muscles are relaxed, as in the dead or etherized subject.

Professor B. maintains, in the present work, that the chief obstacle to the reduction of dislocations of the hip is the *ilio-femoral ligament*, which he calls from its shape the *Y ligament*. This is usually described in anatomical works as reinforcing the capsule by a single fibrous band, extending from the inferior iliac spine to the inner extremity of the anterior intertrochanteric line, and playing no very important part in health or injury. It is more or less adherent to the acetabular prominence and to the neck of the femur, taking its origin from the anterior inferior spinous process of the ilium, passing downward to the front of the femur, to be inserted fan-shaped into nearly the whole of the oblique "spiral" line which connects the two trochanters in front,—being about half an inch wide at its upper or iliac origin, and but little less than two inches and a half wide at its fan-like femoral insertion, where it is bifurcated, having two principal fasciculi, one being inserted into the upper extremity of the anterior intertrochanteric line, and the other into the lower part of the same line, about half an inch in front of the small trochanter; thus resembling an inverted Y.

This ligament is of great tenacity and strength, being nearly a quarter of an inch in thickness, and forming an unyielding suspensory band, by which the femur, when in a state of extension, as in walking, is forcibly retained in its socket.

Among other things of less importance, Professor B. attempts to show, and we think succeeds in showing, 1. That this Y ligament, the internal obturator muscle, and the capsule adjacent to it, are alone required to explain the usual phenomena of the regular luxations. 2. That the regular dislocations are those in which one or both branches of the Y ligament are unbroken; and their signs are constant. 3. That the irregular dislocations are those in which the Y ligament is wholly ruptured: and they offer no constant signs. 4. That in the regular dislocations of the hip, the muscles are not essential to give position to the limb, nor desirable as aids in its reduction. 5. That the Y ligament will alone effect reduction and explain its phenomena, a part of those connected with the dorsal dislocations excepted.

Of course, Professor B. maintains that recent dislocations of the hip can be best reduced by manipulation, the basis being flexion of the thigh, because it relaxes this Y ligament, or because, when it remains tense, it acts as a fixed point, around which the head of the femur revolves near the socket.

In reducing the dislocations of the hip, Professor B. endorses the directions laid down by recent writers, namely, *etherizing the patient till full relaxation is produced, then flexing the leg on the thigh across the sound limb upward over the pelvis, as high as the umbilicus, and then abducting it and carrying the foot across the opposite sound limb:* in other words, *free flexion, outward rotation.* The various regular and irregular dislocations are particularly described, and illustrated by beautifully executed plates, with their manner of reduction, &c.; all of which is made admirably clear and intelligible to the reader.

The latter part of the volume is taken up with *Fractures of the neck of the femur*, of *the trochanters, the rim of the acetabulum* and *other parts of the pelvis;* also clearly illustrated by admirably executed wood-cuts and accurate description.

The work is exceedingly creditable to its author,

and adds considerably to our knowledge of the subject of which it treats; while, in point of artistic execution, as regards paper, type, print, and beauty of its illustrations, it is not surpassed by any medical work hitherto issued from the American press.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, OCT. 13, 1869.

DR. J. C. HUTCHISON, VICE-PRESIDENT, in the Chair.

THE committee on the amputated arm, appointed last Meeting, reported progress.

SUB-MAXILLARY CALCULUS.

DR. LITTLE exhibited a calculus removed from the duct of the submaxillary gland. For two or three years the patient had complained of swelling under one side of the lower jaw. Suppuration finally took place, and an opening formed first discharging pure pus and afterwards a thin glairy fluid. On passing the probe into the opening a calculus was encountered, and easily removed.

EPITHELIOMA FROM ANGLE OF THE MOUTH.

DR. WHITEHEAD presented an epithelioma removed from the angle of the mouth. It was only interesting on account of its situation. The wound healed kindly by first intention.

Dr. Hutchison, in answer to a question, stated that he had recently seen an ephithelioma of the upper lip.

FIBROUS TUMORS OF LOBE OF EAR, CAUSED BY THE PERFORATION FOR EAR-RINGS.

DR. DETMOLD presented two small fibrous tumors removed respectively from the external and internal surfaces of the lobe of the ear of a young healthy mulatto girl twenty years of age. They evidently sprang from the punctures made for the ear-rings. Two similar tumors were discovered on the other ear in the same situation. He was aware that these growths were not unusual, but he had never seen them before on both ears. They were perfectly circumscribed, and were simply sliced off, the parts being left bare of skin. He apprehended a return of the disease in the same situation, in which case he proposed to remove the entire lobe.

FIBRO-CYSTIC TUMOR OF UTERUS.

DR. ROGERS presented, on behalf of Dr. Shine, deputy coroner, a fibro-cystic tumor said to have been attached to the fundus uteri by a pedicle an inch and a half in length. The patient had been treated for five or six years by little pills, at the end of which time she died. The uterus was not removed with the tumor, although it was said to be in a perfectly healthy state.

ANEURISM IN A PATIENT TWENTY-TWO YEARS OF AGE.

DR. JANEWAY presented an aneurism taken from a young man twenty-two years of age. The patient was a pedlar, whose previous history was very defective. He had been examined at the Bellevue Out-door Department for admission into the hospital, and the diagnosis of emphysema only was made, no aneurism being suspected. He went away not intending to enter the institution, but evidently getting worse changed his mind, and on his way to the hospital fell in the street and died in convulsions.

At the autopsy an opening a quarter of an inch in length was found in the posterior wall of the aorta, which communicated with a sac two inches in diameter. This pouch was situated between the artery, the trachea, and the bifurcation. It was filled with clots of blood and much distended. On opening the trachea, the cartilages in its last inch were quite thinned, and its anterior wall was so firmly pressed against the posterior wall of the aneurism that it was capable of admitting but a small amount of air. The heart was healthy, but the lungs were emphysematous and the bronchial tubes were filled with muco-pus. There was also noticed a small spot of lobular pneumonia in the stage of red hepatization. There were no evidences of secondary syphilis present, although a chancre was discovered upon the penis.

NUMEROUS PERFORATIONS OF APPENDIX VERMIFORMIS—UNUSUAL SEAT OF ABSCESS.

DR. JACOBI exhibited the vermiform process and annexa removed from the body of a man who was aged fifty years. He had always enjoyed good health, and never complained of anything until about ten days before his death. At that time he had a pain in the right side of his abdominal cavity, attended with a good deal of fever and some slight swelling. It was thought to be typhilitis from stercoraceous matter. The day before the pain and fever showed themselves he had had an aperient which caused four or five passages, mixed with which was a certain amount of dry fæces. It was supposed that there were more hardened fæces of which the typhilitis was the result, and he was treated accordingly. Another aperient was administered, without, however, bringing much away. The farther treatment consisted in narcotics, and the gentleman got better. For about six days he felt entirely well, and had had a few passages. At the end of this time he arose one morning about four o'clock and took a drink of cold water, immediately after which he was seized with a severe pain and became faint. The physician was sent for, and when he arrived he found him suffering from the usual symptoms of perforation of the gut. Death took place twenty-two hours after. At the autopsy a large abscess was found to the right behind the ascending colon, near the origin of the vermiform process and above it. A considerable amount of pus was found free in the abdominal cavity, in which floated a few scybala. There was adhesion of the intestines in the neighborhood forming the walls of the abscess, which had given way at several places at one and the same time. The vermiform process was attached to the posterior side of the ascending colon, and was perforated in several places. Between these perforations, and also corresponding to them, were small masses of fæces. Adhesion had also taken place between the walls of the vermiform process at its entrance into the colon.

The points of interest in the specimen consisted in the number of simultaneous perforations in the appendix and in the unusual position of the abscess, which, instead of being in the iliac fossa, was higher up and more posterior. This was occasioned by the appendix being drawn up and attached in the manner already described. This condition of things failed to give any of the signs of the presence of an abscess by percussion.

The proximate cause of death was the increased peristaltic action of the intestines caused by the cold water which the patient had drunk.

RECOVERY AFTER REMOVAL OF IRIS-CYST.

DR. KNAPP remarked that he had just received a letter stating that the patient from whom he had removed the iris-cyst eleven years ago had made a complete recovery. This fact was worthy of mention as being one

of perfect recovery, the cyst being also the largest on record.

STATED MEETING, OCT. 27, 1869.

DR. L. A. SAYRE, PRESIDENT, in the Chair.

THE Committee on Microscopy reported the tumors of the ear exhibited at the last meeting by Dr. Detmold to be purely fibrous in character.

The Committee appointed at the last meeting but one to examine and report upon the tumor of the arm presented by Dr. Sayre, on behalf of Dr. Hunt, of Iowa, submitted the following:

REPORT OF THE SPECIAL COMMITTEE ON THE PATHOLOGY AND SURGERY OF A DISEASE FOR WHICH THE ARM WAS AMPUTATED AT THE SHOULDER-JOINT.

The tumor occupies the upper fourth of the anterior portion of the forearm of the right side.

It is ovoid in form, and inclosed in a strong capsule of connective tissue. There is one prominent point, or projection, from its generally regular convex surface, which corresponds with the space between the radius and ulna; and there is a deep groove in its surface, made by the upper fourth of the radius. From that part of the radius corresponding with this groove, and for a distance of two-and-a-half to three inches down the bone from its tuberosity, the periosteum has either been removed, or it is found covered with a bony deposit of one or two lines in thickness. We find that most of the removed periosteum still adheres to concave scales of bone, found hanging to the surface of the tumor, and originally occupying some portion of the above mentioned. The ulna presents a much smaller surface, deprived of its periosteum, than the radius, and was obviously much less involved in the diseased growth. Neither bone, however, exhibits any condition which supports the idea that the tumor is an outgrowth from one or the other. The tumor, as above said, is ovoid in shape, and about three-and-a-half by two-and-a-half inches in its longitudinal and transverse diameters. Its exterior is indistinctly nodular, and surrounded by a strong membranous capsule, to which the adjacent muscular structure is intimately attached. There is no evidence that the joint was involved in the disease. While the tumor was a capsulated one, involving the surrounding tissues, by pressing upon them only there is evidence, at one point upon its surface, that it had the power or quality of sending out offshoots of its own constituents, when circumstances favored, though this is seen in but one or two places. For example, the tumor being bony, as we shall presently see, we find a small conical deposit of the same material in the anterior surface of the biceps muscle, close down to the capsule of the joint. The base of this conical deposit is somewhat roughened and irregular in form, and exactly corresponds with a facet upon the posterior or upper surface of the tumor, and which could be brought in contact with it, by flexing the forearm on the arm—a position which was probably more or less constant during the latter part of the course of the disease, though the fact is not mentioned in the furnished history. This conical mass of cancellous bone is undoubtedly a production, at least under the influence of the tumor, if not from the capsular or periosteal surface itself. It had apparently been separated from the tumor, by extending the forearm during the dissection. The radial artery is found stretched over the surface of the tumor, and is finally lost under a small lobule of it, near the upper extremity. The ulnar artery, on the contrary, runs beneath or behind the tumor, and can be traced with the probe up to near the origin of the interosseous. The brachial artery can be traced down to near the point of its bifurcation, and then is lost in the upper surface of the tumor. This accounts for the fact stated in the history of the case, that the circulation in both the radial and ulnar arteries had disappeared some time before the operation. It is therefore clearly shown that the tumor originated beneath or behind the upper fourth of the radial artery.

The tumor itself is an *osteoid tumor of the cancellous variety*, and like most osteoid tumors is hollow, or, in other words, possesses a medullary cavity, lined by a strong membrane. The homology, therefore, of this tumor, to the bones of the frame, is perfect. It has a periosteum, a bony shell of half an inch, more or less, in thickness, cancellated, and a medullary cavity lined by membrane. We have been unable to find any cartilage corpuscles in it. There is no part of it, from its connective-tissue capsule to its lining membrane, or medullary membrane, in which true bony formation is not found. In some points, immediately upon the medullary membrane, its tissue is more spongy than nearer the surface, and these portions exhibit under the glass a great predominance of typical fibrous structure, with the addition of many objects recognizable as bone corpuscles or lacunæ, already deposited in its meshes. It therefore appears to be a structure whose growth was progressing in a manner similar to the ossification of the bones of the fœtus. As presented to the committee, there is found no cell or other appearances of heterologous nature. It is, in short, a sample of *osteoid tumor*, regarded by pathologists as rather a rare one, because it is developed in the soft tissues, or at least under very slight influence of any bone, its connection with the bone, as we have seen, being but very limited, and purely periosteal. On account of its hollowness and its spongy character, it has a limited elasticity when pressed upon firmly, and it is not so hard but that it can be cut through with a knife, with a moderate degree of force.

Its general appearance and stucture, as viewed by the eye and by the microscope, are very accurately described by a distinguished pathologist in the following language: "They are tumors of irregular protuberant surface, consist of a cancellous bony tissue, which is plunged amid a grayish white, vascular, fibrous material, in which a sparing quantity of cells and nuclei are discernible. This substance seems to be similar to the ossifying basis of the cancellous tissue, and yields, on boiling, neither gelatin nor chondrin. The bony skeleton of an osteoid tumor may predominate more or less, so that the structure may be like compact or spongy tissue." *Jones and Sieveking, Pathological Anatomy*, p. 181.

There seems to be a disagreement among pathologists as to whether these tumors should be classed among the malignant or innocent tumors. Paget ventures to place them among the latter, and so does Lebert; while Rokitansky regards them as more properly classed among the former. Their history, however, would lead to their classification with enchondroma as to malignancy and general habit, especially those osteoid tumors which implicate the bones little or none at all, as was the case in this instance. Therefore, had this tumor been removed, there would, the same as if it had been of cartilage, have been a possibility, if not a probability of its return.

Having thus replied to the part of the request relating to the character of the tumor, the Committee now proceed to the consideration of that part relating to the "necessity of amputation," by far the more delicate and unsatisfactory part. All surgeons comprehend the diffi-

culties attending the expression of an opinion about the necessity of an operation in a case which they have not seen, and of which they perhaps, as is generally the case, have a very meagre account. There were undoubtedly many puzzling points in the diagnosis of this tumor. Its rapid development, its appearance as described in the commnication, and the general condition of the patient, were certainly very strong grounds for belief in its malignancy. And we cannot, of course, say what were the difficulties in arriving at a conclusion as to whether one or the whole three bones forming the elbow-joint were involved in the disease.

We therefore feel disqualified for expressing an opinion upon the light of the evidence which influenced the surgeon to operate in this case.

STEPHEN ROGERS,
FRANK H. HAMILTON,
ALFRED C. POST.

To be continued.

NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, OCTOBER 21, 1869.

DR. H. D. BULKLEY, PRESIDENT, in the Chair.

CHRONIC METRITIS IN ITS RELATION TO MALIGNANT DISEASE OF THE UTERUS.

DR. E. NOEGGERATH read a paper in which he presented the result of a few observations intended to establish new facts concerning the connection between chronic metritis and malignant disease of the uterus. He first made a few remarks with regard to the condition usually called *chronic metritis*, a term now vaguely used, being applied to every pathological condition which exhibits signs of an inflammatory nature. He formerly committed the same error, calling all those pathological conditions of the womb chronic metritis which manifested themselves by tenderness, swelling, and an increased diameter of the uterine axis, and which were benefited by a so-called antiphlogistic treatment. The diseases most frequently thus misnamed are: congestion of the entire or part of the uterus, with or without catarrh and erosions; imperfect involution, with catarrh of the body; circumscribed or diffused hypertrophy of the utricular glands; chronic perimetritis, with secondary affection of the uterus; retroversion or retroflexion, accompanied by obstruction of venous circulation; imperfect involution of the seat of placental attachment; submucous infiltration of part of the body or of a section of the cervix.

One reason why so many different diseases have been comprised under this name is the fact that most of them are productive of the same class of rational or subjective symptoms indicating irritation.

2d. The so-called antiphlogistic or alterative treatment, applied to either of the above pathological conditions, has led to similar beneficial results.

3d. The differential diagnosis is very difficult to establish, even with thorough knowledge and ample experience.

Lastly, one of the leading authors in gynæcology, Prof. Scanzoni, has described quite a large number of uterine diseases, in his well-known pamphlet, under the name of chronic metritis, stating that the disease in question took not only the first rank in frequency among the several affections of the female sexual organs, but even among the diseases to which the human body in general is liable. These are the causes which have contributed to render the name of chronic metritis rather vague, and make it desirable to have its meaning restricted to certain well-defined limits.

The disease which he means manifests itself by certain peculiarities which give it a distinct character, and enable us to recognize it from among other similar conditions.

With regard to its pathogenesis, all authors, with very few exceptions, agree as to its inflammatory character. The view generally entertained is that advocated by Scanzoni, generally known and usually accepted. His own views on its origin, based on close study of the subject for many years, are somewhat at variance with those now in vogue, and coincide exactly with those entertained by *Prof. Seyfert*, of Prague.

With a single exception, he has never seen a case of so-called chronic parenchymatous metritis develop itself in a uterus outside of the puerperal state.

The idea so generally adopted, that chronic metritis is the secondary stage of acute metritis, is entirely erroneous. The former stands in the same relation to the latter as cirrhosis of the liver does to acute inflammation of that organ. They are two distinct affections.

Acute inflammations of so-called parenchymatous organs are exceedingly rare, and this holds good especially with regard to the uterus outside of the puerperal state. The latter affection is of such rare occurrence that the doctor declared to have seen it certainly not more than two or three times. Its issue, however, is not chronic metritis, but either resolution and restitution ad integrum, or shrinking of the organ in all its diameters. Suppuration also has been seen in a very few instances.

Nor has he ever observed chronic metritis as a sequel of so-called uterine irritation, passive vascular congestion, catarrh, endometritis, perimetritis, fibroid tumors, dislocation or disease of the heart. In one single instance he had met with it as a result of cachexia, coexisting with chronic induration of the ovaries and liver.

The disease in question is the combined result of subinvolution of the uterus and a process of exudation which takes place in the tissue of the uterus immediately after delivery, in consequence of puerperal fever. This interruption of retrogressive metamorphosis takes place whenever the natural involution of the uterus is interfered with by some injurious influence, so that the absorption of the exuded masses deposited between the muscular elements cannot be properly accomplished. This results in a development and permanent deposit of cellular tissue within the walls of the uterus.

Both cavities and tissue of body and neck are always equally enlarged. The affection extends over the entire organ. All those cases which have been described separately as chronic metritis of the body and of the neck are affections of quite a different character and bearing. By exploring the uterus with the sound, we find that the long diameter is always considerably increased, say from three-quarters of an inch to two and three inches. Not so, however, with the width of the canal, it being usually narrower, from the fact that the hypertrophy is rather concentric than excentric. The tissue of the uterus is exquisitely anæmic and brittle. The capillaries being compressed to a high degree, there exists very little secretion from the membrane lining the cavity. A peculiar kind of granulations, which he has seen only in this form of disease, characterized by their irregular flattened shape, and grayish lustreless hue, very much like those seen in trachoma of long standing, owe their existence to a new formation of conjunctive tissue in the mucous membrane of the uterus itself.

The loss of vascular energy and the rigidity of the tissues involved, explain the small amount of menstrual secretion. Wherever there exists profuse menstruation, we have to search for a complication to account for it.

The position of the uterine axis is never influenced by chronic metritis, since the enlargement is equably distributed all over its surface. Nor does any displacement of the uterus, no matter how complete, ever lead to its development.

Another peculiarity of the disease, Dr. N. said, consists in the fact that the signs characterizing the affection become latent during pregnancy, to reappear with renewed violence in the shape of an acute attack after delivery. Since he published his paper, containing the data concerning this fact, in the *New York Journal of Medicine* of 1857, he has had occasion repeatedly to verify the ideas pronounced at that time, and he is now more than ever convinced that pregnancy and delivery in a woman suffering from chronic metritis will rather do harm than good. He has seen one instance where, under these circumstances, the size of the uterus has increased with every succeeding pregnancy, so that he found the womb, a fortnight after the fifth delivery, to be of the size of a uterus at the fourth month of gestation.

Dr. N. stated further that true chronic interstitial metritis is incurable by our ordinary means of treatment. He has, however, succeeded in relieving a few of the cases under his care by the operation first performed by Drs. Sims and Emmet of this city—namely, the amputation of the entire or part of the cervical portion.

Lastly, Dr. N. intended to prove that the tissue of a uterus affected with chronic metritis is apt to be transformed into papillary epithelioma.

He then read a history of six cases, which he has carefully observed, and where the transformation of the tissue affected with chronic metritis into epithelioma or cauliflower excrescence could be traced step by step.

The cases reported were few in number—many, when we consider the few chances we have to observe malignant disease of the uterus at the very outset of its development—many, in view of the fact that interstitial metritis is of very rare occurrence. During the entire year which has passed, and although Dr. N. treats diseases of the female sexual organs almost exclusively, he has seen only two cases of interstitial metritis, besides the three mentioned in the paper read.

In his further remarks on the subject, the Doctor gave a careful analysis of the earliest rational as well as physical symptoms indicative of beginning malignant disease. The question as to the curability of cauliflower growth is so far from being settled, that one of the most recent authors on the subject, Dr. F. Kuchenmeister, a very experienced and able gynæcological operator, declares the affection incurable. From his description of cases, however, Dr. N. is led to believe that he has observed and operated upon his own cases at an earlier period than Dr. K.; and in three of them, which were true villous epithelioma, no relapse had taken place—in two instances twenty months have passed without a recurrence of the disease; and in the case first described, a careful examination of the tissue of the uterus, removed after death (from epileptic convulsions), showed no trace of cancroid eight months after the operation.

It is a noticeable fact that only that variety of cancer which is called epithelioma, cancroid, has been observed in connection with chronic metritis. In none of those cases where true carcinoma was seen at that early stage of development, where the condition of the uterine tissue could as yet be ascertained, was it found to develop on a neck enlarged by interstitial growth of cellular tissue. It is, however, the rule to meet with both cancroid and true cancer at such an advanced period of development that a physician must be unusually lucky who has encountered half-a-dozen instances of malignant disease in its early stages of development; and Dr. N. thought that he had seen more of beginning cancer than the majority of his colleagues, and thus he was enabled to collect the facts presented here for the first time. In the present confused state of pathological anatomy, as far as it relates to the pathogenesis of cancer, it would be too hazardous to offer an explanation as regards the connection between interstitial metritis and cancroid.

If the observations should be substantiated by additional facts, they would go pretty far to corroborate the views entertained by some of the most prominent advocates of the school of Virchow, Rokitansky, and Rindfleisch among the rest, who have, by numerous and very careful researches, arrived at the conclusion that the enormous masses of epithelial cells in a cancroid tumor derive their origin from the cellular tissue interspersed between the muscular strata.

Dr. N. would give the name of *diffused interstitial metritis* to the disease to which he referred in his paper, the first development of which, he said, is only seen during the puerperal state, and which consists in an abnormal growth of intramuscular cellular tissue affecting the entire uterus, both body and neck being equally diseased, and which is cured occasionally by amputation of the neck. Pregnancy and delivery, he said, do not exert a beneficial influence, but are apt to prove a new stimulus to the abnormal growth of the uterus. It is a disease but rarely observed, and has a tendency to be transformed into cancroid or simple cauliflower disease.

Dr. Fordyce Barker said that he had listened to the paper just read with deep interest, and was glad to hear the author commence by defining what he meant by the term "chronic metritis," as the term is one which has been most vaguely used. Different authors have included under this denomination chronic inflammation of all the parts and tissues of the uterus, affections essentially different in their origin, their symptoms, their history, and their therapeutics. He (Dr. B.) would restrict the use of the term to chronic inflammation of the body of the uterus. In a discussion before the Academy a few years since, he had occasion to refer to the pathological distinctions between this form of parenchymatous inflammation, and that involving other portions and tissues of the uterus. He would briefly refer to the reasons then given for regarding the body of the uterus as anatomically, physiologically, and pathologically as distinct from the cervix as the stomach from the œsophagus. Anatomically, the muscular walls of the neck are much less dense and more vascular than the walls of the body of the non-pregnant uterus—the circular fibres of the neck are entirely distinct, having no continuity with those of the body—and its mucous membrane resembles much more the mucous membrane of the vagina than the rudimental mucous membrane of the cavity of the body. Physiologically considered, the neck and the body of the uterus are still more remarkably distinct. The mucous membrane of the cervix does not participate in those changes of development, rupture of capillaries and exfoliation, which take place in the mucous membrane of the body of the uterus at each menstrual period. During gestation, the cervix does not participate with the body of the uterus in the formation of the decidua, the active nutrition and development of the muscular fibres and the expansion requisite for the growth and retention of the fœtus. But the cervix has its own peculiar changes during that period, namely, a progressive ramollissement or softening from the os tincæ to the os internum as a preparation for labor.

In parturition, the phenomena pertaining to the first stage of labor result from causes acting on the walls of the neck of the uterus; those of the second stage of labor from causes acting on the walls of the body of the uterus; and in the puerperal state, that process of involution, the fatty degeneration and interstitial absorption of muscular fibre, takes place solely in the body of the uterus, the walls of the neck of the uterus undergoing no such process. Thus the functions of the neck and body are so absolutely different, that they may be physiologically regarded as two distinct organs. So also the pathology of the cervix and the body of the uterus is equally distinct. Acute inflammation of the cervix is frequently met with, but acute inflammation of the body of the non-gravid uterus is rarely met with. Chronic inflammation of the cervix is also very much more frequent than chronic inflammation of the parenchyma of the body of the uterus. It is to this latter condition that he would restrict the term "chronic metritis." This is frequently, but not always, associated with chronic catarrh, or chronic endometritis; and he was by no means so sure as some authors seem to be, that these two conditions bear any constant relation to each other of cause and effect. He thought all we are warranted in saying is, that they are frequently associated conditions. He would also add, that he used the term chronic inflammation in the sense in which it is ordinarily understood in medical language, as applied to similar and different tissues in other parts of the body. He understood the author of the paper to express the opinion that chronic metritis is never the result of an acute inflammation, but is always due to an arrest of involution after abortion or parturition. He could hardly concur with this view, as he thought he had been able to trace it to other causes. For example, a lady, when menstruating, received the news of the death of her husband at the battle of Gettysburg. Menstruation was suddenly arrested. She had an attack of acute metritis, and since that time she has been a broken-down invalid from chronic metritis. In several cases he had seen it developed soon after marriage; when it is usually associated with uterine catarrh, and the patient is generally sterile. The cases which Dr. Noeggerath has read are most interesting in their details and in their results, but they seemed hardly sufficient to justify his deduction. If he understood the author correctly, one of his conclusions was, that chronic metritis has a tendency to develop cancer; but he did not suppose Dr. N. would have it inferred that such a result is liable to occur, except when the constitutional predisposition, which we call the cancerous diathesis, exists.

Dr. Peaslee said that he considered it unfortunate that the phrase chronic metritis had not been long since dropped, for as at present used every one who uses it must give his own definition. Dr. Noeggerath has clearly defined what condition he means by this term,—though Dr. P. would not call that condition metritis,—and has shown its connection with papillary epithelioma. The last has not, in Dr. P.'s opinion, any connection with scirrhus. "Chronic metritis" means chronic inflammation of the parenchyma of the uterus, if it means anything. Now the most important element of the inflammatory process is *exudation of liquor sanguinis*, and the inflammation is ended by the exudation. But do we have this event in what is termed chronic inflammation? He objects to using the term chronic inflammation any longer in medical nomenclature, as it only misleads us; and does not recognize any such thing. In what is called chronic bronchitis, for example, in aged people, we have a cough, and abundant secretion of mucus, but no symptom of inflammation; and in the event of death the autopsy reveals no exudation, but simply a congestion. What is generally called chronic metritis is in his opinion *chronic congestion* of the uterus, sometimes the result of acute inflammation, but by no means necessarily so. He was under obligations to Dr. Noeggerath for bringing the connection of proliferation of the uterine connective tissue with epithelioma before the Academy, with so many carefully recorded cases.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

Stated Reunion, October 15, 1869.

Dr. Isaac E. Taylor, President, in the Chair.

IDIOCY: ITS DIAGNOSIS AND PHYSIOLOGICAL TREATMENT.

Dr. E. Seguin read a paper upon the subject, *What a General Practitioner must know about Idiocy.*

He reviewed (1) the characteristics of idiocy as incurable or improvable; (2) The two systems of education applied to idiots; (3) The difference between the private and the public schools where they are treated—three points upon which any family physician may at any time be called to give his professional opinion. The first is strictly medical, the second didactic, the third descriptive. The first, as most interesting to the physician, we give *in extenso*.

"1. For the diagnosis and prognosis of idiocy, the want of comprehension of our ideas by an evidently backward child, his incapacity to follow the ordinary course of instruction, his general or special intellectual deficiencies (when unaccompanied by physiological disorders), the form of the head, unless in extreme hydro- and micro-cephaly, is no criterion.

"But the following tests are of value: (*a.*) The walk regularly swinging from side to side, not forward and backward like that of the inebriate. (*b.*) The hand hanging, or automatically busy, or moist with saliva which escapes from the meaningless mouth, more abundant in excitement. (*c.*) The look oblique and vacant, or sliding about, lustrous and empty. (*d.*) The speech null, or limited to a few involuntary words, or to repeated syllables, or to some obsolete tune, with an occasional yell inserted, to express a want. To sum up, the criterion of idiocy is found more in the psychological than in the physical symptoms.

"The prognosis is favorable: (*a.*) When the walk does not deviate much from the centre of gravity. (*b.*) When the hand is firm without stiffness, not busy with automatic movements, can prehend and let go, on imitation or command. (*c.*) When the look is easily called to action, and the other senses are unimpaired. (*d.*) When the words, even imperfect or few, have a connected meaning, and come out opportunely. (*e.*) When the child is active without restlessness, is pleased to obey, sensible to eulogy, quite as capable of giving as of receiving caresses.

"Contrarily the prognosis is unfavorable: (*a.*) When, without paralysis, the walk is next to impossible, and accompanied (besides the sideway swinging) by frequent headlong plunges. These plunges forward supersede the lateral movement at a fearful rate and force when the children are confined in chairs. (*b.*) When the fingers, tapering and cold, stiff or relaxed, cannot be flexed or extended, cannot grasp or let go, being otherwise engaged in some automatic movement, whose prevention causes pain and lasts no longer than the obstacle opposed to their automatic habit. (*c.*) When the look (besides being useless and unfixable) is implicated in the automatic action of some other organ, of

the fingers, for instance. (*d.*) When the touch presents profound or vast anæsthesia (oftener than hyperæsthesia), disclosed by extensive mordications, bloody lacerations, fearful blows, unfelt by the child though so painful to witness. (*e.*) When some feelings of affection have been developed by kind parents, and are not followed by corresponding intellectual progress. (*f.*) When idiocy is complicated by extensive paralysis, and, worse, by epilepsy."

2. The didactic part of the paper treated of the method of educating idiots. This consists in a special mode of giving activity and precision to their functions, whence the phrase, *physiological training*. It has little in common with the ordinary means of educating ordinary children, for in these the functions are supposed to be perfect; so that, with organs of perception acting swiftly, and good school appliances, a child easily does honor to his teacher. But the idiot's perceptive functions are all dull or obliterated; hence, before any other education can be effected, his organs must be trained to a certain standard of accuracy, without which he cannot be proficient in anything. This training has been quite appropriately called the straightening and enlarging of the doors and windows through which the mind enters and issues. Such is the object of the physiological training of idiots; and commensurate with its success is the degree of ordinary education that may be accomplished. The more training for the functions of hearing, seeing, speaking, etc., the better are the chances of furnishing the idiot's mind with the common stock of knowledge included in the word education. The Doctor thus summarized his views upon this point: "Plenty to do for the idiot; plenty to do for the moralist and Christian; an immense field for the physiologist and physician; an inexhaustible source of reflection for all."

3. The descriptive part of the paper referred to the organization, buildings, *personnel*, of idiot-asylums. Prior to 1851, there were schools for idiots in France, Prussia, and England; but none had been built expressly for them. To the State of New York belongs the credit of that munificence, and to Dr. H. B. Wilbur the honor of having initiated, planned, and erected the State Asylum at Syracuse—a monument to his individual energy and skill. There the State, that is Dr. Wilbur, has charge of 150 idiots of both sexes, whose progress, well-being, and good behavior have been the admiration of thousands of visitors. This institution, one of the glories of our State, cannot compare in size with the one recently built at Earlswood, England; but, in respect to hygiene, to moral and sensorial training, to the education and happiness of the pupils, it is equal to any other, and is certainly superior to what a philanthropic imagination could ever have dreamed as possible for these unfortunate children twenty-five years ago.

Before dismissing his subject, Dr. Seguin gave a detailed description of a private institution, under the charge of Dr. George Brown, at Barre, Mass., for the same class of children, where their friends can afford more expensive accommodations. Here the young idiots are treated in comparative luxury, and the old are nursed with all the comfort that money can procure. This establishment is the only one in this country brought to maturity by private energy and capital. Dr. Seguin had recently seen it in operation, with fifty inmates and a full corps of teachers.

There are seven other institutions for idiots in the United States, which were briefly mentioned. The speaker felt that the comparison of their respective plans of management, of the medical, hygienic, and educational treatment of the children, would elicit much valuable information for physicians and scientific teachers. Such institutions were schools of learning even for the learned, and of especial interest to the medical profession.

The discussion, in which Drs. Post, I. E. Taylor, and Burrall took part, bore mostly upon the anatomical conditions of the head in idiocy. This, in Dr. Seguin's view, was the most dreary and fruitless part of the subject, whose more fertile fields were now yielding a rich harvest of knowledge, suggestion, and practical good under the culture of the physiologists and teachers.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

ADJOURNED ANNIVERSARY MEETING, OCTOBER 18, 1869.

DR. GEORGE T. ELLIOT, JR., PRESIDENT, in the Chair.

(Continued from last number.)

ULCERATED SCIRRHUS OF BREAST HEALED UNDER TREATMENT.

DR. F. A. BURRALL read the history and presented photographs of a case which he had shown, in person, at the reunion of the Medical Journal Association, October 8th, where it had been examined by many surgeons. We have given the paper in the last number of the RECORD. In our report of the discussion upon it we incorporate the remarks made at the above-mentioned meeting of the Journal Association:

DR. SAYRE thought the case one of unusual interest, though the exact nature of the tumor seemed not to be positively made out. While it exhibited some of the features of cancer, it lacked others. The retraction of the nipple, for instance, was either absent or hardly noticeable. He had never before seen anything like the three little nodules upon the upper part of the breast.

DR. WHITEHEAD was Dr. Burrall's colleague at the Northern Dispensary, and had seen the patient when she first applied there. He had then satisfied himself, from the appearance and feeling of the tumor, the axillary enlargement, the woman's expression, and the history of the case, that the breast was invaded by a malignant growth; and he had strongly urged its amputation, but the woman refused. He had then lost sight of the case till Dr. Burrall had called his attention to the cicatrization of the ulcers. To the retraction of the nipple, as a diagnostic mark, Dr. Whitehead attached less weight than did many of the text-books, though it had some value. It was apt to be best marked in a special atrophic form of cancer, attended by cancerous deposits in the long bones and the vertebræ.

The PRESIDENT had seen the case at the meeting of the Journal Association, and had no doubt whatever with regard to its character.

DR. BURRALL regarded the three pimples, referred to by Dr. Sayre, as abortive ulcers. The large, irregular, superficial cicatrix on the upper part of the breast was but the record of an intercurrent ulceration that had started from just such pimples, and attained its final size and appearance from the coalescence of their small circular ulcers. He had at first suspected this case of being one of atrophic cancer; but, according to Holmes, that form rarely or never reached a greater size than that of a pigeon's egg. The retraction of the nipple, from the drawing down of the milk-ducts, though a common sign, was regarded by most authors as by no means a necessary and constant one. The microscopic appearances were essential to a complete diagnosis; and these, in this case, clearly showed a heterologous growth. The speaker had supposed his treatment original, but had just been informed by Dr. Weisse that similar ex-

periments had been made in Paris, by Dr. Déclat, with happy results. There were several important points of difference between Dr. Déclat's cases and his own; but the common point was, that carbolic acid was used both locally and internally in the treatment of malignant disease.

Dr. Weisse stated that Déclat had, in 1865, published a work on new applications of carbolic acid, in which he mentioned two cases of cancer of the tongue treated by this agent, and ten cases whose treatment was not then completed. He had since issued a work, giving reports of thirty-nine cases of cancer of the tongue, twelve of them of doubtful diagnosis. His local treatment consisted in applying, in spray, to the ulcerated surface a solution of five parts of the crystallized acid in ten parts of alcohol and one hundred of water. In some cases, where a whitish film covered the ulcer, he employed a caustic solution of equal parts of the crystals and absolute alcohol. Internally, he gave a solution of one part of the acid in two hundred of simple syrup, a fluid drachm every three or four hours. If this quantity produced nausea, as was sometimes the case, the dose was diminished. The remedy acted as a local anæsthetic, promoted sleep, and improved the appetite. Sometimes, when the patient was in bad condition, he gave the bicarbonate of potassa or soda, in conjunction with the carbolic acid, following the recommendation of Broca. Occasionally, also, he combined with the acid the arsenite of soda or the bichloride of mercury. By this treatment, Dr. Déclat had succeeded in curing all the doubtful cases, and ten out of fifteen where the diagnosis was positive. In five of these latter the treatment failed completely. In two of the ten undoubtedly cancerous cases, relapses occurred, which were successfully met by the same treatment. In some of the cases clearly diagnosticated, the treatment was continued for a year and upwards before the cure was pronounced complete.

Dr. Buck hoped to see the treatment extensively tried, and suggested that such physicians as did not care to pursue it themselves, might be able to throw further opportunities in the way of Dr. Burrall.

The Society adjourned.

Correspondence.

GELATINE AS A SINGLE ARTICLE OF FOOD.

To the Editor of the Medical Record.

Sir—I am induced to offer my notes of the following case for publication as a practical, and well nigh fatal illustration of the fact, long ago demonstrated, that life cannot be sustained upon a single article of food, like gelatine, sugar, or starch.

Aug. 4, 1869.—Was called to child of Mrs. T—, of Brooklyn. It had been brought from the city yesterday, to try change of air as a last resort, although little hope was entertained of its recovery.

I obtained the following history:—The child is fifteen months old, has been raised by the bottle, and quite healthy until four weeks ago it was taken with diarrhœa, although not severely. Since then it has been steadily failing. A week later hooping-cough came on. The diarrhœa has continued pretty constantly, having three to ten green watery passages a day, although not profuse ones. During the past three days it has failed very rapidly, and for thirty-six hours now it has vomited everything as soon as swallowed.

The child is now reduced to the last degree of emaciation; is lying on its back upon a pillow, in the arms of its nurse; not a trace of color in its face; noticing nothing; scarcely able to raise its hand; its pulse barely perceptible; and keeping up a low restless whining cry.

I was told that *by the direction of its attending physician*,—a very respectable practitioner of Brooklyn—*its food was changed when taken ill, four weeks ago, from milk to a solution of gelatine. That since that time it had been limited absolutely to that, and that positively no other food had been allowed or given.*

To the evident satisfaction of its friends, I directed to commence at once with milk, the richest procurable, and give a tablespoonful, diluted with 3 ij Aq. Calcis every hour; to give enema of ten drops of brandy in a little beef-tea every four hours; to allow a teaspoonful of water every fifteen minutes if thirsty, and no medicine except

℞ Chloroform ♏iv.
Aq. Calcis ℥i.

S. 1 teaspoonful every hour if vomiting continues.

5th. Child has vomited but once since visit of yesterday. Took the chloroform and lime-water but twice. Has had milk every hour, and is ravenous after it. The bottle has to be taken away each time by force. Bowels have moved but once. Is restless and thirsty, but has much more color and life. To continue nourishment without change, and have Elix. Opii (McMunn) ♏ij. every four hours at night if restless.

6th. Took anodyne twice, and rested better. No more vomiting. Bowels have moved twice; passages better in color and consistence. To omit enema and gradually increase quantity of milk.

7th. Improving rapidly; sitting up this morning and looking very bright and cheerful. Bowels quite right. To substitute pure water for the lime-water in milk, and have ℞ Ol. Morrhuæ ℥ij., Sodæ Phosphatis 3i. M. 1 teaspoonful three times a day.

9th. The child is laughing and happy, and, excepting its cough, is perfectly well. Has still a ravenous appetite, can take a quart of milk a day, and is gaining flesh with perfectly marvellous rapidity.

G. Willson Murdock, M.D.

Cold Spring, N. Y.

Medical Items and News.

The Roman Catholic Orphan Asylum soon to be erected on Madison Avenue will cost $200,000. The performances at the Academy of Music, October 21st, ult., yielded a very handsome return in aid of the above object.

Birth Registration in New Orleans, La.—The recorder of births and deaths of New Orleans advertises that he intends to enforce the law requiring that every child born in that city shall be recorded in his office.

The Roosevelt Hospital.—The corner-stone of the Roosevelt Hospital, in Fifty-ninth street, was laid with considerable ceremony October 29th ult. The hospital is intended for the use of the sick and diseased of all races, colors, and creeds, and was endowed by the late James H. Roosevelt, who died in 1863.

The Physique of the Canadians.—According to Professor Goldwin Smith, Canadians are physically superior to Americans.

Stimulants of Various Nations.—Whiskey and brandy are the intoxicants of America, Russia, Scotland, and Ireland; ale and beer, of England, Germany, Japan, and Egypt; wine, of France and Italy; bouza,

of Nubia; pulque, of Mexico; tuka, of Kamschatka; betil, of Polynesia; arrack, of Africa and Hindostan; opium and shamshae, of China and Turkey; bangue and hashish, of Arabia and the Grecian Archipelago; coco-leaves of Peru; palm-leaves, of the Palm countries; hyosciamus, of Syria; rue, of the Crimean Valley; and, in more recent times, ether and chloroform among the cultivated and refined of our own country.

Carbolic Acid.—As an antiseptic and disinfectant carbolic acid has no equal—1-1000th, even 1-5000th, will prevent decomposition, fermentation, or putrefaction of blood, urine, etc. The sewers of London were kept perfectly sweet, during the existence of cholera in 1866, by 1-10,000th part.—*Cin. Med. Repertory.*

Death from Chloroform.—Dr. John Dickson, Pittsburg (*Med. and Surg. Reporter*), reports a death from chloroform. The patient was about to submit to amputation of leg, but died about one minute after the anæsthetic was administered.

A Physician Poisoned by Hair-Dye.—From an analysis of the body of the late Dr. J. M. Witherwax, an old practitioner of Scott County, Iowa, who died with peculiar and obscure symptoms, it was found, as rightly surmised, that he died from lead poison. The lead was introduced into the system through the use of hair dye.

Dr. Hazen and Cartwell each made four separate analyses of the liver of Dr. W., and one of the kidneys, and found lead in the tissues of those organs each time. —*Med. and Surg. Reporter.*

Dr. E. Lee Jones is the new editor of "the Medical Register of New York City, Brooklyn and vicinity," vice Dr. John Shrady, resigned.

Drs. John G. Frazer and Wm. J. Donor are the newly appointed Surgeons at the Central office, Metropolitan Police Department.

St. Mary's Hospital, Hoboken, N. J., realized $7000 by a fair lately held at Odd-Fellows' Hall, in that city.

The New Home for Foundlings will be opened in an eligible location in this city some time during the present month.

Munificent Donation to the Woman's Hospital.—An opulent gentleman of this city, who prefers to conceal his name, has given $80,000 to the Woman's Hospital for the purpose of enlarging the building.

The London Female Medical College has matriculated eighty students since its organization some six years ago.

Homes for War Cripples.—Mother Bickerdyke, the famous hospital nurse, has found lands and homes in Kansas for forty of the organ-grinding war cripples of Boston.

East River Medical Association, Officers Elect. —*President*, William Newman, *Vice-Presidents*, Truman Nichols, Montross L. Smith, *Secretary*, William J. Purcell, *Treasurer.*

Death of Distinguished Men.—Two men whose works have shed much lustre upon Germany, have just died at and beyond the ripe age of eighty years. Purkinje, whose researches are well known, has just died at Prague; and Carns, who also devoted his powers to psychology, died at Dresden, much regretted by a large circle of friends and admirers.

An International Pharmacopœia.—Amongst the questions which are set down for debate at the approaching Pharmaceutical Conference, to be held at Vienna next month, is the compilation of a universal pharmacopœia.

An Incident Connected with Dr. Cruickshank.—The following sentiment was found upon the person of the late Dr. Cruickshank, who was surgeon of Rajah Brooke, of Sarawak: "Some men are born vagabonds, some achieve vagabondage, and others have it thrust upon them. I may characterize myself as one of the last class."

A Monument to Cholera Victims.—A monument has been placed in the public cemetery of Ancona, Italy, in memory of 11 medical men who died during the three epidemics of cholera which prevailed in that city in the years 1836, 1855, and 1865. Their names were Giuseppe Lorenzin, Dominico Giacobecci, Flaminio Bennazi, Alfonso Azostini, Gaetano Persichetti, Albino Bonetti, Luigi Pieverzolli, Cesaro Pulloni, Eugenio Tucoli, Giovanni Corbisier, and Ercole Stefanini. The ceremony was attended by representatives of the Italian Medical Association, of the Florentine Medical Committee, and of the medical men who came from Florence to render assistance during the cholera epidemic in Ancona in 1865.

Anecdote of Dr. Jenner.—The late discoverer of vaccination having discontinued his professional visits to a patient on account of her improved condition, sent a couple of ducks to the mother of the convalescent lady, accompanying the present with the following note:—

"I've despatched, my dear madam, this scrap of a letter,
To say that Miss Lucy is very much better:
A regular doctor no longer she lacks,
And therefore I've sent her a couple of quacks."

The lady addressed returned thanks with this:—

"Yes, 'twas polite, truly, my very good friend,
Thus a 'couple of quacks' to your patient to send;
Since there's nothing so likely as 'quacks,' it is plain,
To make work for a 'regular' doctor again."

To Students of Natural History.—The Jessup Fund of the Philadelphia Academy of Natural Sciences is for the purpose of assisting poor young men who desire to study the Natural Sciences.

The children of the late Augustus E. Jessup, wishing to carry out the intention of their father, "pay to the Academy the sum of $480 per annum, to be used for the support of one or more deserving poor young man or men who may desire to devote the whole of his or their time and energies to the study of any of the Natural Sciences."

Several young men furnishing evidence of requisite qualifications, on application to the curators, may receive benefit from the Jessup Fund.—*Proceedings of the Academy of Natural Sciences.*

Death of Dr. Lebeau.—This distinguished pathologist died at Brussels, a short time since, aged 73 years. He was Professor of Internal Pathology in the Free University of Brussels, and Vice-President of the Belgian Academy of Medicine.

The Lavender Farms in England.—The lavender-fields in England are charming to the eye from the matchless color of its blossoms, and delicious to the olfactory organ from its exquisite perfume. The lavender farms are situated at Mitcham, in Surrey, and at Hitchin, in Hertfordshire, and contain about 270 acres. Every acre yields about 6,200 lbs. of flowers. Every hundred pounds of these give up, by distillation, about one pound of the otto of lavender; so that there is an annual production of nearly 7,000 lbs. of lavender otto

It takes six ounces of this otto to make one gallon of lavender water; so that Britannia and her children—Jamaica, Canada, Australia, and others—with a few strangers, as Russia, Germany, the United States, use, each year, the enormous quantity of seventeen thousand gallons of this favorite spirit.

GROWTH OF MEDICAL SCIENCE IN THE DISTRICT OF COLUMBIA.—A century ago there were but two physicians in Alexandria; its population in 1700 was 2,749; that of Georgetown 1,200; while Washington, at the same time, was inhabited only by farmers and fishermen. At present the population of Washington is over 100,000, and the number of physicians one hundred and fifty.

PARIS DOCTORS.—Between the years 1640 and 1670, there were 110 doctors to a population of 540,000 inhabitants; that is, about one to every 4,900 souls. At the present time there are in Paris about 1,800 to 1,740,000 inhabitants, or one doctor to 960 souls.

A CAT INFIRMARY.—A rich and eccentric business man, of Columbus, Ohio, has recently made a will, which disinherits all the natural heirs of the maker of it, and devises the entire property in trust for the establishment of an *infirmary for cats*. It provides areas for that sweet amatory converse so dear to the feline heart, and rat-holes of the most ravishing nature, to be kept well stocked. The most ingenious contrivances are provided for securing to the rat a chance for escape, so that the cats may not lose the pleasures of the chase by finding their prey come too easily. High walls are to be built, with gently sloping roofs, for the moonlight promenade and other nocturnal amusements of the cats. The trustees are directed to select the grounds for this novel infirmary, in the most populous part of some great American city, and the devisees are to be protected, by a competent force of nurses, from the ravages of men and dogs. No person of the male sex is ever to be admitted within the walls, and no female who has children or is under thirty years of age.

The last provision of the will is more ridiculous than the previous ones. Says the devisor: "I have all my life been taught to believe that everything in and about man was intended to be useful, and that it was man's duty, as lord of animals, to protect all the lesser species, even as God protects and watches over him. For these two combined reasons—first, that my body, even after death, may continue to be made useful; and secondly, that it may be made instrumental, as far as possible, in furnishing a substitute for the protection of the bodies of my dear friends, the cats—I do hereby devise and bequeath the intestines of my body to be made up into fiddlestrings, the proceeds to be devoted to the purchase of an accordeon, which shall be played in the auditorium of the Cat Infirmary by one of the regular nurses, to be selected for that purpose exclusively—the playing to be kept up for ever and ever without cessation day or night, in order that the cats may have the privilege of always hearing and enjoying that instrument which is the nearest approach to their natural voice."—*The Quart. Jour. of Psychol. Medicine.*

FRATERNAL LOVE (*a post-mortem sketch*).—Here's a specimen of egotism, says the *Santé Publique*, exhibiting one aspect of human nature.

A certain physician was in attendance upon a very rare form of disease. In spite of his care the patient died. The physician, in the interest of science, asked the brother to permit him to make an autopsy.

The brother bounded up in indignation.

"What? touch my brother, my poor brother! Profane ~~his~~ corpse! Never! You shall kill me rather than make me forget the respect due to a beloved dead."

"But in the interest of science?——"

"I am very sorry for your science!"

"*In your own interest*, then."

"Ha!" exclaimed the brother in surprise.

"Hem! Are you not of the same blood? The disease which has carried your brother off may have also germinated in yourself. Let me examine the nature of the case by this post-mortem, and it will become easier for me to combat the disease when it makes its appearance in your own person."

The brother became pale. A quarter of an hour afterwards he himself begged that the autopsy should be made—made with every detail—with extensive notes of everything observed. In short, he insisted so much upon the minute examination of every organ, that the doctor was obliged to say to him:

"Exactly so. If I comprehend you, sir, you request me to cut your brother up in small pieces, sir, do you not?"

THE ITALIAN WAR OF 1859.—Dr. Chenu, the accomplished author of the "History of the French Army during the Eastern Campaign of 1854–56," has written the medical and surgical history of the Italian campaign of 1859. Baron Larrey, who was surgeon-in-chief of the French army in the war of 1859, and now at the head of the French Army Medical Service, recently presented to Emperor Napoleon the first copy of Dr. Chenu's interesting work.

THE FIRST TO OPEN SUPPURATING JOINTS.—John Gay, of London, was the first who suggested the rationale of freely opening suppurating joints. The proposition met with strenuous opposition at the time, on the part of Hancock, the surgeon of Charing-Cross Hospital, who favored exsection. Professor Roser, of Germany, expressed his belief that exsection is little more than the free opening of an articulation, with the removal of diseased bone surfaces.—*Med. Archives.*

DUTY OF MEDICAL WITNESSES IN COURT.—In a recent suit in England, against a vocalist for non-fulfilment of an engagement, Dr. Rumsey, of Cheltenham, while testifying as to the man's condition on the day he was to have sung, said, in answer to a question from the attorney, "I am here to give evidence as to facts, not to state opinions."

The *Lancet* comments thus: "A subpœna does not require a witness to state opinions. Medical practitioners who are so unfortunate as to be mixed up with the parties to a law-suit, cannot too well remember that any evidence that they give, may, if it so please them, be strictly limited to a narration of facts observed."

TIERS-ARGENT.—This is the most beautiful and useful alloy of silver yet manufactured. It is made by simply melting together two parts of aluminum and one part of silver. It is hard and light, which two qualities, added to its beautiful whiteness, render it very desirable as a material for the fabrication of table furniture. Spoons, forks, goblets, castors, butter knives, and salvers, have already come into use in Paris.—*Journ. of Ap. Chemistry.*

A DELICIOUS PERFUME.—The flowers of the "Vachellia," when distilled, give a highly prized perfume. The plant belongs to the acacia family, and grows in the East and West Indies and Africa.

ALCOHOLIC SPIRITS FROM TOMATOES.—A patent has been issued to a party in New Jersey, for the manu-

facture of alcoholic spirits from *Tomatoes*. The process consists in separating the juice of the fruit from the pulp by pressure, and mixing it with molasses or other saccharine matter, and yeast. The mixture is then fermented and distilled in the ordinary manner of distilling rum. The amount of sugar contained in the fruit varies considerably, and adds more or less to the alcoholic product.

THE USE OF TOBACCO.—Professor W. A. Hammond says, in the *Am. Review*, that to smoke after meals is a perfectly orthodox physiological act, and is another example of coincidence between instinct and science. Many cases of dyspepsia are cured by this simple means. Tobacco, by diminishing the destructive metamorphosis of the tissues, enables mankind to support the effects of hunger with less loss of strength, and less bodily and mental fatigue, than would otherwise result.

SYDENHAM'S ADMONITION TO DOCTORS.—The following are Sydenham's golden words: He who gives himself to the study and work of medicine ought seriously to ponder these four things. *First*, That he must, one day, give an account to the Supreme Judge of the lives of the sick committed to his care. *Secondly*, That whatsoever of art, or of science, he has by the divine goodness attained, is to be directed mainly to the glory of the Almighty, and the safety of mankind, and that it is a dishonor to himself and them to make these celestial gifts subservient to the vile lusts of avarice and ambition. Moreover, *Thirdly*, that he has undertaken the charge of no mean or ignoble creature, and that in order to his appreciating the true worth of the human race, he should not forget that the only begotten Son of God became man, and thus far ennobled, by his own dignity, the nature he assumed. And *Lastly*, That as he is himself not exempted from the common lot, and is liable and exposed to the same laws of mortality, the same miseries and pains as are all the rest; so he may endeavor the more diligently, and with a more tender affection, as being himself a fellow sufferer, to help them who are sick.

SPIRITUOUS LIQUORS CONSUMED IN GREAT BRITAIN.—Every year upwards of £228,000,000 are spent by the British nation on intoxicating drink. The expenditure would pay off the debt of Great Britain in less than five years, and lessen taxation for ever.

EMANATIONS FROM THE INHABITANTS OF NEW YORK CITY.—Estimating the population of New York City at one million of inhabitants, we can compute the quantity of solid fæcal matter and urine which passes daily into our sewers. Six ounces of solid fæcal matter pass from each individual in twenty-four hours. This would equal 375,000 lbs. avoirdupois of *solid* filth which passes into the sewers and privies every twenty-four hours; or, in other words, 187 tons of human manure are manufactured every day in this great metropolis. The liquid portion, or the urine, is to be now alluded to. Every citizen averages five and a half pounds — $1{,}000{,}000 \times 5\frac{1}{2} = 5{,}500{,}000$ pounds of urine pass into the sewers every twenty-four hours. Adding the two together, we have: Solids, 187 tons; liquids, 2,750 tons. Total, 2,937 tons.

From the above calculation it will be noticed that 2,937 tons of decomposing matter go into our sewers every twenty-four hours. This equals 20,559 tons every week, and this would equal 82,236 tons every month.

CASE OF HYDROCEPHALUS.—Dr. Eve, of St. Louis, a short time ago, mentioned a case of hydrocephalus before the members of the *St. Louis Medical Society*, of an individual sixteen years old, whose head was three feet in circumference, and also referred to a cranium he had seen of a hydrocephalous individual in which there were over 400 ossa Wormiana.—*Medical Archives.*

DEATH FROM SHOCK FOLLOWING EXTRACTION OF TEETH.—Wm. Hilton, of Whitefield, England (*Medical Times and Gazette*), æt. 14, went to Dr. Birnie to have two teeth extracted, and immediately after the operation had been performed he fell back in a fit of epilepsy, from the shock to the system, and died.

TO TAKE QUININE.—The taste of quinine is concealed by taking it in sweet milk.

THE FIRST MEDICAL DEGREE CONFERRED IN AMERICA was in 1770, upon Robert Tucker.

THE FIRST COURSE OF MEDICAL LECTURES IN THE UNITED STATES.—The first systematic course of lectures upon medical subjects, in America, was delivered by Dr. William Hunter, on anatomy, at Newport, in 1754, '55, and '56, and by Dr. Shippan, in Philadelphia, in 1762, upon the same branch, accompanied by dissections, to a class of ten students.

THE MEDICAL DEPARTMENTS IN THE UNIVERSITIES OF PARIS AND BERLIN.—In the University of Paris there are twenty-eight professors, and twenty-nine assistant professors, besides a dean. In the University of Berlin there are twenty-eight professors and thirty-eight assistant professors.

LUNATICS IN ENGLAND AND WALES.—In 1844, there were 20,611 lunatics in England and Wales, or one in 802 of the population. In 1868, this number had risen to 50,118, or one in 432 of the population.

THE FINEST HOSPITAL IN ITALY.—Milan possesses the finest hospital in Italy, the "Ospidal Maggiore," and one of the best in the world. The vast, extensive terra-cotta building contains no fewer than nine courts, one of which is surrounded by a handsome series of arcades. The entire structure was erected at the individual expense of one Francisco Sforza, in 1456. It accommodates 2,500 patients, and about 22,000 are treated annually.

PROF. PEASLEE commenced, on the 5th inst., at the College of Physicians and Surgeons, a course of Lectures on Ovarian Tumors, with special reference to Ovariotomy. The course will be continued on successive Fridays, at 4 P.M. It will be followed (same day and hour) by one from PROF. BUMSTEAD, on Syphilis; on the conclusion of which, PROF. W. H. DRAPER will begin a course upon Skin Diseases. The Profession are invited.

PROF. HAMMOND is giving, at the Bellevue Hospital Medical College, a series, unique in this country, and but once before attempted in medical teaching, of Clinical Lectures on Insanity. The clinics are held at 3½ P.M., Saturdays, and are open to members of the profession.

New Publications.

OUR HOME PHYSICIAN: A New and Popular Guide to the Art of Preserving Health and Treating Disease, etc., etc. By GEO. M. BEARD, A.M., M.D. E. B. Treat & Co. New York. 1869.

A COMPOUND OF MATERIA MEDICA AND THERAPEUTICS, for the Use of Students. By JOHN C. RILEY, A.M., M.D., Prof. of Materia Medica, National Medical College, Washington, D. C. Philadelphia: J. B. Lippincott & Co. 1869.

Original Lectures.

ON THE HYDRATE OF CHLORAL:

REMARKS MADE BEFORE THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK, NOV. 1, 1869,

BY A. JACOBI, M.D.,

CLINICAL PROFESSOR OF DISEASES OF CHILDREN, COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

CHLORAL was discovered by Liebig, in 1830, it being the final product of the action of dry chlorine on ethylic alcohol. It is a thin liquid, of spec. grav. 1502; turns thicker gradually, and sometimes changes into an insoluble modification, with development of heat. By mixing chloral with water, the substance gets heated, and within a short time the hydrate of chloral crystallizes in needles. Its difference from chloral consists in the addition of an equivalent of water, yielding the formula $C_2 Cl_3 OH + H_2 O$. For experimental and therapeutical purposes this preparation has been found most useful when strictly pure. Impurities are not rare, as in forming chloral by the action of chlorine on alcohol, other accessory products are formed, which have the same irritating effect when in the chloral as in chloroform.

The crystalline needles of hydrate of chloral can be melted down into a solid crystalline mass. It is white or colorless. It is soluble in water; a slight opalescence is found after its being long preserved. Its odor is peculiar, melon-like, somewhat pungent. The solution in water is neutral. When muriatic acid is present in it, a slight addition of ammonia will prove a corrective. Mixed with nitrate of silver, no change of color ought to take place. When the crystals are treated with sulphuric acid, there ought to be formed a colorless oily layer turning into a solid mass before long. The watery solution, when mixed with an alkaline solution, turns milky, gets clear again, and yields some chloroform at the bottom of the test tube.*

Before experimenting on human subjects, Liebreich submitted frogs and rabbits to the effect of the hydrate of chloral. Half a grain was injected in a frog; it showed the first symptoms in four minutes; slept in half an hour; complete anæsthesia lasted three and a half hours; and in another hour it was all well again. Another frog, after one gr., was under the influence, with complete anæsthesia which lasted twenty hours, within eight minutes. In a few hours more it was well. In a third one the experiments concerning reflex action revealed no effect when the ischiadic nerve was cut. Rabbits exposed to the influence of the drug, in doses of sixteen grains, slept a few hours; one from evening to morning; one, after thirty gr., from eight P.M. to noon; one, after taking sixty gr. at seven and a half P. M., died in the course of the night. One had thirty-two gr. injected at one and a half P. M.; at 1-49 the pupils contracted, and anæsthesia commenced. Respiration at 1·52, 72; at 1·56, 54; at 1·57, 52; at 2·4, irregular, 82; after a while 72, and death occurred at 3 P. M. A dog required 96 grains for a complete effect. According to his experiments the effect on the ganglia of the heart becomes visible after the effect on brain and spine. The pneumogastric nerve appears to be unaffected, as the heart, when dissected out, does not pulsate. No less is there a direct effect on the muscle of the heart, as the ventricle, cut loose from the influence of the ganglia, contracts on irritation like the normal heart.

* DR. OSCAR LIEBREICH: *Das Chloralhydrat ein neues Hypnoticum und Anæstheticum und dessen Anwendung in der Medicin.* Berlin, 1869.

After many experiments on animals, Dr. Liebreich proceeded to administer the remedy to patients. Among the first cases is one of delirium tremens, related by Prof. Langenbeck, in the Berlin Med. Society meeting of July 2d. A woman of forty-two years got run over on the 25th of June, 1869, and was admitted into the surgical clinic; left humerus and fibula were fractured. She had plaster of Paris applied; and, as she was suspected of being a habitual drunkard, was ordered a daily dose of four ounces of brandy. Delirium set in on the 27th; she had to be tied, but still the fractured limbs could not be completely steadied. The integuments of the fractured arm, up to the shoulder, became reddened, and gangrene appeared imminent. One-fourth gr. of chlor. morph. was injected subcutaneously three times, at intervals of half an hour. During the same night she took seven gr. of opium besides, without being at all affected by it. After another grain-dose, the following morning, she vomited. Then at 3·22 P. M., during a hot fever, four and a half grammes (seventy-two grains) of hydrate of chloral were given in fifteen grammes of water and fifteen of syrup. No improvement after eight minutes; after twenty-three minutes she got quiet, and closed her eyes now and then. A gramme of the remedy was then injected subcutaneously, with two of water. Five minutes after, she fell asleep; could not be awakened by roughly touching her hand; would move when pricked with a needle, but remain sleeping. Pulse and respiration were normal. She slept uninterruptedly until the following morning; only once she asked for the time. Next morning she was fully conscious, so that she could be freed from restraint. There was some hope now of saving the arm; it was kept in an appropriate and comfortable position. Patient remained quiet until the evening of the 29th, when again she became excited. After two grammes of the hydrate of chloral, administered internally, she slept all night, and no further delirium showed itself. Over the fracture, and where the soft parts were most exposed to pressure, the fragments of bone were laid bare; the wound commenced to granulate, and recovery set in soon. This case has been related in full, though briefly, because it was the first to prove that the hydr. chloral proved efficient where opium and morphia in large doses had failed; that the effect is almost instantaneous; and that the sleep of this patient with delirium tremens was not accompanied with symptoms of congestion or spasm.

After this experience, and a number of cases carefully watched, part of which have been quoted in some journals, Dr. Liebreich comes to the following conclusions, as far as the therapeutical administration of the hydrate of chloral is concerned. The dose is from 4 or 5 grs. in the new-born, to 40 or more in the adult. Insane persons and drunkards require larger doses, as is also the case with opium and morphia. The internal dose is perhaps not larger than that subcutaneously injected, according to his present observations. My own do not agree with these, which is the more easily explained by the fact that the patients subjected to internal treatment were not, like those in whom the remedy was injected by him, insane or drunkards. It is contra-indicated by gastric ulcerations, as the remedy is slightly caustic, and in catarrhal or ulcerative affections of the larynx. In such it produces pain and cough. It has the same local effect, there, as chloroform. A slight excitement may even precede the full hypnotic effect, as in chloroform, the exciting effect of which is probably due to local irritation of the mucous membrane of the lungs, as Liebreich thinks—of the pharynx and larynx, as I believe. I may add here, in proof of my opinion, an observation frequently made by me, viz., that chloroform, when intro-

duced into the lungs without passing the pharynx and larynx, produces no stage of excitement. A few drops of chloroform, perhaps seven or eight, when inhaled from a sponge through the tracheal tube, after tracheotomy, have an almost instantaneous effect.

Liebreich's further conclusions are, that in moderate doses of 24 grs., both pulse and respiration behave as in physiological sleep; that neither gastric disorders (vomiting, etc.) nor headache will follow its administration and effect; that it can be safely used in diseases of the heart, after or before painful operations, and in hysteria. It will be indispensable in painful inflammatory affections, acute rheumatism, and a number of neuralgias; *e. g.* in tic-douloureux, ischias, gastralgia, enteralgia, whooping-cough, laryngospasmus, singultus, nervous asthma, tetanus, and trismus. A probably excellent indication will be found in the fearful peripheric pain of ataxy. In cholelithiasis it will perhaps cover two indications; first, the relief of pain, and secondly, the chemical solution of the gall-stones, for which chloroform has been recommended. Chloroform, internally administered, is absorbed with too great difficulty to be of much use; while chloroform slowly and surely formed out of chloral, in the blood, will be more apt to have a safe effect.

Whether chloral will ever take the place of chloroform, as an anæsthetic for the purpose of performing painful operations, is a different question. The administration of chloroform, when threatening symptoms show themselves, may be interrupted at any moment; the transformation of the swallowed or injected hydrate of chloral cannot be stopped at pleasure. Whether the induced electrical current, apparently so effective in my hands, will be a sufficient safeguard, remains to be seen. I shall make further experiments to answer that question. At all events it will be difficult to determine the dose which can be given with safety, and at the same time produces anæsthesia, in individual cases—in spite of the apparently undoubted proportion between anæsthetizing and fatal doses. It appears that when 48 grs. are sufficient to kill a rabbit, a third less, viz., 32 grs., will produce complete anæsthesia.

As far as the hypnotic effect alone is concerned, some of Liebreich's cases, and my own, prove its efficacy in many instances where morphia is either useless or not tolerated. In addition, Dr. Liebreich proposes smaller doses of the remedy as a sedative, in cases of nervous excitement, in insanity, and in those brain affections of infants and children where opium appears contra-indicated or doubtful. Although the dangers of opium in diseases of infancy and childhood are greatly exaggerated, in part in consequence of the indications not being strictly laid out or understood, there are cases in which the primary exciting effect of the opium must be avoided. In such cases, hydrate of chloral will take its place. Availing himself of this hint, Dr. J. W. Ogle (*Lond. Lancet*, Oct. 16, 1869) has tried it in several cases. He says: It has proved most useful and satisfactory in its action as a hypnotic in small doses, viz., doses varying from 5 to 10 grs. In a slight attack of delirium tremens, 20 grs. acted very sufficiently and well in procuring sleep. In one case only did any unpleasantness attend its administration, and that was when peculiar sensations about the head were complained of by a woman suffering from chronic peritonitis, who took 5 grains. On the following night 4 grs. were given, along with a few drops of chloric ether, and no such unpleasant results followed.

The doses in which hydrate of chloral must be given, have been sufficiently stated. The only mode of its administration is in solution in distilled water. Alkaline additions must be avoided. When given internally, the chemical constituents of the food taken before or after ought to be taken into consideration. Croton water has proved entirely safe in my hands. Small doses permit of the solution in distilled water alone; larger doses, because of the bitter, pungent taste, require correction by mucilages or syrups. In this respect, as in all others, the facts and advice given by Dr. Liebreich, in his excellent pamphlet, have not been set aside or improved upon by his followers. In fact, the whole literature of the subject is still but an account of the author's experience, theory, and suggestions. Not all the additions or fault-finding of what few authors have paid attention to the subject at all, are praiseworthy or useful. In fact, although there are a great many extracts, notices, short accounts, in the journals of the last months or weeks, but very little has been added to Dr. Liebreich's original stock.

Demarquay has reported his experiments on the hydrate of chloral to the Academy of Sciences of Paris, on the 6th of September. He injected into the subcutaneous tissue of rabbits doses of from 3 to 32 grains. In all cases sleep would follow, after 15 or 20 minutes, lasting from 2 to 3 hours, with complete muscular relaxation. They would recover in a short time after coming to, and feel perfectly well after 2 hours. During the sleep the conjunctivæ and ears were injected as after a section of the sympathetic nerve, the temperature falling 1 or 1½ degrees F. Vivisection exhibited dilatation of abdominal vessels, considerable injection of the mucous membranes, particularly in the trachea, of the brain and meninges, spine, and muscles. In addition, the arterial blood presented a slightly bluish hue. Sensibility appeared to be increased, inasmuch as pinching of ears, lips, and tail, not minded by the healthy animals, produced pain and reflex action in the chloralized animal. With normal respiration, Demarquay found the pulse considerably accelerated. Demarquay disagrees with Liebreich upon the explanation of the effect of chloral. He contends against the doctrine of chloroform being developed in the alkaline blood, for the following reasons: 1st. As there is a strong smell of chloral in the expired air, the transformation of chloral into chloroform *appears* but trifling. 2d. Chloral produces hyperæsthesia, chloroform anæsthesia. 3d. The effect of chloroform lasts but a few minutes, that of chloral a few hours. Therefore he limits his own opinion and remarks to the assertion that chloral is the most powerful agent for muscular relaxation and the speediest hypnotic. This appears to be sure then, however doubtful his objections. Numbers 2 and 3, especially, are easily disproved by any one who will carefully read Liebreich's pamphlet or Richardson's experiments—all of them showing the long duration of sleep induced in rabbits by chloroform, and the absence of the stage of excitement when the remedy was not administered by inhalation.

Richardson* experimented with a solution of 30 grains of the hydrate of chloral in 40 grains of water, it being a saturated solution; the whole making a fluid-drachm. Chloroform was found to be formed by mixing this solution with fresh blood. In pigeons, weighing from 8½ to 11 ounces, narcotism was produced readily by the administration of from 1½ to 2½ grains of the hydrate. In these animals the dose of 2½ grains was the extreme that could be borne with safety, and a dose of 1½ grains was sufficient to produce sleep and insensibility. The full dose of 2½ grains produced drowsiness in a few minutes, and deep sleep with entire insensibility in twenty minutes. Before going to sleep there was in

* From Med. Times and Gazette, Sept. 4, 1869.

every case, whether the dose was large or small, vomiting. As the sleep and the insensibility came on, there was in every instance a fall of animal temperature; and even in cases where recovery followed, this decrease was often to the extent of five degrees. The respirations also fell in proportion, declining in one case from 34 to 19 in the minute during the stage of insensibility. From the full dose that could be borne by the pigeon, the sleep which followed lasted from three and a half to four hours. Six hours at least were required for perfect recovery. During the first stages of narcotism in pigeons, the evolution of chloroform by the breath was most distinctly marked.

In rabbits weighing from 83 to 88 ounces, 30 grains of the hydrate were required in order to produce deep sleep and insensibility. A smaller dose caused drowsiness and want of power in the hind extremities, but no distinct insensibility.

When the full effect is produced in rabbits, from the administration of the large dose, the drowsiness comes on in a few minutes; it is followed by want of power in the hind limbs, and in fifteen minutes by deep sleep and complete insensibility. The pupil dilates, and becomes irregular; the respiration falls (in one case from 60 to 39 in the minute), and the temperature declines 6° Fahr.; sensibility returns with the rise in number of respiratory movements, but in some cases falls again during the process of recovery. The drowsiness, or, if the animal is left alone, what may be called sleep, lasts from five and a half to six hours. But it was observed that the period of actual anæsthesia was very short, lasting not longer than half an hour, after which the skin seemed rather more than naturally sensitive to touch. During recovery there are tremors of muscles almost like the rigors from cold, due probably to the great failure of animal temperature.

In frogs a grain of the hydrate causes almost instant insensibility, coma, and death.

In further prosecution of his research, Richardson tested, on similar subjects, the effect of chloroform, bichloride of methylene, tetrachloride of carbon, and chloride of amyl. In all the observations with these substances, the narcotising agent was used by hypodermic injection. It was found, as a result of these inquiries, that seven grains of chloroform, five of tetrachloride of carbon, and seven of chloride of amyl, produced the same physiological effect as two grains of the hydrate. Seven grains of the bichloride of methylene induced a shorter insensibility. A rabbit subjected to thirty grains of chloroform slept four hours and twenty-five minutes; and a pigeon subjected to seven grains slept three hours and twenty-five minutes. All these agents caused vomiting in birds, before the insensibility was pronounced, the same as did the hydrate; but in no animal was there any sign of the stage of excitement, which is seen when the same agents are administered by inhalation. This fact is most important as indicating the difference of action of the same remedy by difference in the mode of administration. The temperature of the body was reduced by the agents named above, but not so determinately as by the hydrate.

Two animals, pigeons, made to go into profound sleep, the one by the hydrate, the other by chloroform (each substance administered subcutaneously), were placed together, and the symptoms were compared. The sleep from the chloroform was calmer; there was freedom from convulsive tremors, which were present in the animal under the hydrate; and recovery was, it was thought, steadier. It was observed (and the fact is well worthy of note) that no irritation was caused in the skin or subjacent parts by the injection of the chloroform and other chlorides.

The neutralizing action of the hydrate on strychnine was tried, and it was determined that the substance arrests the development of the tetanic action of the poison for a short period, and maintains life a little longer afterwards, but does not avert death. This subject deserves further elucidation.

When the hydrate of chloral is given in an excessive dose, it kills; there are continuance of sleep, convulsion, and a fall of temperature of fully eight degrees before death.

The post-mortem appearances were noticed after a poisonous dose. The vessels of the brain were found turgid with blood. The blood is fluid, and the coagulation is delayed (in a bird to a period of three minutes), but afterwards a loose coagulum is formed. The color of the brain-substance is darkish pink. The muscles generally contain a large quantity of blood, which exudes from them, on incision, freely. This blood coagulates with moderate firmness. Immediately after death all motion of the heart is found to be arrested. The organ is left with blood in both sides, but with more in the right than in the left. The color of the blood in the two sides is natural, and its coagulation is moderately firm. The other organs of the body are natural.

Other observations are made on the changes which the blood undergoes when the hydrate of chloral is added to it. The corpuscles undergo shrinking, and are crenate; and when excess of the hydrate is added the blood is decomposed in the same way as when treated with formic acid. The summary of the author's work may be put as follows:

Hydrate of chloral, administered by the mouth or by hypodermic injection, produces, as Liebreich states, prolonged sleep.

The sleep it induces, as L. also shows, is not preceded by the stage of excitement, so well known when chloroform is administered by inhalation.

The narcotic condition is due to the chloroform liberated from the hydrate in the organism, and all the narcotic effects are identical with those caused by chloroform.

In birds the hydrate produces vomiting in the same manner, and to as full a degree, as does the chloroform itself.

The sleep produced by the hydrate of chloral is prolonged, and during the sleep there is a period of perfect anæsthesia; but this stage is of comparatively short duration.

The action of the hydrate is (as Dr. Liebreich assumes) first on the volitional centres of the cerebrum; next on the cord; and lastly, on the heart.

Experiment on a Rabbit.—The solution used for an experiment made on a rabbit yesterday, was prepared in the following manner: An ounce of hydrate of chloral was dissolved in 10 drachms 40 minims of distilled water; it formed 14 fluid drachms when the solution was perfect. Thus, one drachm of fluid contains 34·3 grains of the remedy. Such a drachm was injected into the subcutaneous tissue at

4.30, P.M. Normal temperature in the rectum 102° F.
32. Pupils contract.
33½. Gets uneasy, drags his hind legs.
35. Pupils dilate again.
37. Respirations 84. They were not counted before, nor was the pulse, as the animal was much excited.
38. Hind legs relaxed.
39. Respir. 52.
40. Slight reflex action of the hind legs and muscles of the face. Anæsthesia.
41. Temp. 102°. No reflex action, except in the face, especially of the bristles.

43. Resp. 57.
43½. Temp. begins to fall by ½°.
45. Pupils do not react under the influence of light.
46½. A little more reflex action, kicks with the feet of right side.
48. Temp. 101¼°.
49. Resp. 50.
50. Temp. 101½°.
51. Temp. 101°. Very slight reaction of orbicular muscles.
52½. Temp. 100¾°.
55. General anæsthesia. Touching with a knife makes no impression, except reflex action in the face, on the corresponding side.
56½. Temp. below 101°.
5. 1. Temp. 101½°. Pulse almost innumerable, irregular in size.
5. Temp. 100°. Resp. 50, deeper.
10. Temp. 99½°.
15. Reflex action greatly diminished.
18. Temp. 99°.
34. Temp. 98½°. Resp. 55.
38. Temp. 98°.
43½. Temp. 97½°.
48. Temp. 97°. Resp. 49.
53. Temp. 96½°. Resp. 54.
6. 0. Temp. 96°. Resp. 54. Reflex action very slight, and on the orbicular only.
5. Temp. 94°.
9. Temp. 92½°. Resp. 48. Cornea tarnished. No reflex action.
13. Temp. 90½°. Resp. 46.
13½. Temp. 89½°. Resp. as deep as before.
14. Temp. 90°.
15½. Temp. 91½°.
17. Temp. 90½°.
19. Temp. 92°. Heart beats very rapidly.
20. Temp. 93°. Resp. 52.
21. Temp. Reflex action more decided, also when the lower eyelid is touched, also when the external canthus is touched.
22. Temp. 94°.
25. Temp. 93½°. Less reaction, mostly at the external canthus.
31. Temp. 92¾°. Resp. 48. Good reflex action all over the face.
36. Temp. 93°. Resp. 48.
39. Pushing the bulb in further by ½ inch, increases the temperature by 1½°—94½°.
47. Temp. 95½°. Resp. 56.
55. Temp. 95°. Resp. 54. Good reflex action in the face.
7. 5. Temp. 94½°. Resp. 50.
15. Temp. 93½°. Resp. 52. A strong induced current applied to the respiratory muscles, for 4 minutes, increases resp. to 66, but does not influence the temperature. Four minutes afterwards, resp. 54.
50. Temp. 93½°. Resp. 57. The induced current was again applied for some minutes, one pole (metal) applied to the lips, one (moist sponge) to the femoral nerve. Violent reaction set in, and voluntary movements of the feet and the head; temperature not changed.
8.30. Temp. 92½. Resp. 66. Eyes clear. Now and then a voluntary movement of the legs, right side, on which it lies.
45. Temp. 92°. Resp. 64. For the last 15 minutes occasional reflex movements of all extremities and neck. Attempted several times to rise upon fore feet. Sniffed. Muscles, especially of neck, less flaccid.
50. Attempted to rise without having been touched for 5 minutes.
9. 0. Again attempted to rise. Temp. 92½°. Got up on its belly and moved about by means of all-fours. Eyelids, always open hitherto, close and remain closed. It becomes necessary to remove the thermometer from the rectum. At the attempt at replacing it a minute after, she opened her eyes and resisted. The approach of the finger causes contraction of the lids.
11. Got up on four legs again. Temp. 93°. Resp. 68. Attempt at introducing thermometer causes violent resistance from hind legs. Pressure of thermometer causes nipping action of perinæal muscles.
30. Temp. 93°. Resp. 70. Winks.
45. Temp. 93½°. Resp. 68.
55. Stands firmly on her feet; clings with her claws to the bottom of the box. Urinates a small stream.
10. 0. Temp. 93°. Resp. 66.
15. Begins to look about, and holds ears normally. Sniffs.
30. Temp. 92½°. Resp. 64. Thermometer previously warmed and retained in rectum five minutes. She sits up naturally, and exhibits nearly normal activity and strength. When thrown on her side, the weakness of her limbs is very marked in her attempts at getting up.
11.0. Temp. 92½°.
30. Temp. 94°.
45. Temp. 94°.
12.0. Temp. 94°. Resp. 72. Pulse fast and fluttering.

Nov. 1st.

12.30, A.M. Temp. 95°. Resp. 75. Bread thrown out to her, and the cabbage in the box, are not touched. A saucer of water is also neglected. When her lips are forcibly drawn down to it, she sips about an ounce with evident appetite.
1.0. Temp. 95½°. Urinating.
45. Temp. 95°.
2.45. Temp. 95°.
3.30. Temp. 96°.
5.0. Temp. 94½°.
6.20. Temp. 93°.
8. 8. Temp. 92½°.
10.0. Temp. 89°. Has been under a cold window, and is therefore placed at the furnace register.
12.30 P.M. Temp. 89°. Resp. 80.
2.0. Temp. 88½°. Has eaten some in the course of the morning, and drank several times. Has urinated also. Moves freely, but is not very active.
5.0. Temp. 87½°. Is sluggish in her movements; does not want to lie down, however.
7.0. Temp. 87½°. The same condition. Quiet. No appetite.

Second Experiment, on a Smaller Rabbit.

Temperature of rectum, 102°. Resp. 100 per minute.

1.18 P.M. Injection of 7 gr. of hydrate of chloral into femoral vein. While the piston of the syringe was still being slowly pushed in, the animal suddenly struggled, cried, and became relaxed; respiration seemed to be suspended, though the heart beat quite as rapidly as ever. In about half a minute respiration was re-established, but with only 52 per minute.
1.24. Temp. 100½°. Resp. 72, mostly abdominal. Eyes open; pupils somewhat contracted. Reflex action only about the face. Sphincter ani relaxed; during the struggle a fæcal bolus had been expelled.

1.30. Temp. 100°. Blood-vessels seen in wound and neighboring skin more distinctly than formerly. On the inner side of thigh, a large vessel which was formerly perceptible, is now tangible through the integuments.
1.35. Temp. 98⅘°.
1.40. Temp. 98°. Some movement of right hind leg.
1.45. Temp. 97½°. Resp. 76.
1.50. Temp. 97½°. Pushing thermometer-bulb rudely about in the rectum, causes jerking of fore and hind legs, and repeated screams. Moving about the bulb in rectum seems sufficient to cause general spasm.
1.55. Temp. 97½°. Resp. 68. Pinching the ear caused jerking of the head and fore feet.
2.0. Temp. 97½°. Resp. 68. Good deal of general reaction, with a cry. When the mouth is irritated, it attempts to close the jaws, and afterwards moves the tongue about in the mouth as if tasting.
2.15. Temp. 96⅕°.
2.20. Muscular movements preceded by tremor. Pinching ear causes general tremor, and some independent movement of head and fore legs. Nasal alæ act in respiration.
3.50. Temp. 96½°. Rests on all-fours; totters and attempts to escape. Resp. 94.
3.0. Temp. 98°. Resp. 120. Pretty lively, though still weak.
5.0. Temp. 100½°. Is lively, eats and drinks. Evidently the small dose injected into the vein had a very powerful and rapid effect, from the whole being changed into chloroform at once. This fact explains, however, why the effect disappeared so rapidly.
7.0. Temp. 102°.

Cases in Practice.

I. The first patient to whom I administered the hydrate of chloral was a man on board the steamship Hammonia. He had been very seasick during the rough passage from Hamburg to Havre, and from Havre onwards. On the 29th of September, he had been without food and sleep for some days; nausea and retching still continued, and he commenced to show the symptoms of approaching exhaustion. I injected into the spare subcutaneous tissue of his abdominal wall, a solution of half a drachm of hydrate of chloral in a drachm of distilled water. His pulse of 90 fell to 68 in twelve minutes, the temperature not being measured, and within a quarter of an hour he fell asleep. He awoke after two hours, asked for food, took a cupful of beef-tea, and retained it. For twenty-four hours he improved; and even in the heavy sea of the following days, was not so sick as to induce me to experiment on him again.

II. A lady of 20, who had suffered from metritis and vesical catarrh for years, and from severe hemicrania, sympathetic vomiting, and sleeplessness, together with serious hysteric attacks during and after menstruation, was taken with the same symptoms in a more than ordinary degree, about the 18th of October. Morphia and codeia did not relieve her complaints, which were further increased by a mucous intestinal secretion and tenesmus. Two evenings in succession, and one morning, she was given two scruples of the hypnotic dissolved in two tablespoonfuls of (Croton) water, the medicine each time procuring a sound and quiet sleep, with evident diminution of the morbid symptoms after awaking. No such symptoms, belonging either to the brain or the stomach, as are noticed after the use of morphia or chloroform, were perceptible.

III. A lady of 25, has suffered from intense parametritis after her second confinement, some years ago. She has never entirely recovered. Her ailments have been increased by hæmatocele, repeated three times in the course of 20 months, each time taking place during menstruation. There is in her pelvis an old exudation in the left broad ligament, resulting in local and mammary pain, besides a neuralgic pain along the crista ilii; and, besides, the remnants of those hæmatoceles, pressing the uterus downwards and forwards in prolapse and anteflexion. In consequence of this malposition and some catarrh, her bladder must be emptied from twelve to fifteen times a day, and then she is compelled to rise from six to seven times every night. That her menstruation is very much disturbed by local pain and general symptoms, I need hardly add. She took, two nights before her menses set in, and when the symptoms became aggravated, two scruples of the hydrate of chloral in a tablespoonful of water, and had an uninterrupted quiet sleep for 10 hours, after having not enjoyed a single quiet night for years, in spite of the internal and subcutaneous use of all sorts of narcotics. The next night she had the same effect from two scruples. Her menstruation set in the following day, and she kept her bed, as always during that period, to prevent any disturbance. The dose was reduced to half a drachm for four subsequent nights, each time with the above result. No headache, no constipation, nor any other untoward symptom showed itself afterwards, the effect being confined to producing a sound sleep; for the symptoms, as mammary pain and vesical spasm, returned every day after she woke up. I am not yet prepared to say whether the remedy will have, in this case, a lasting antineuralgic effect, as the original cause is not removed; but the nervous irritability may still be allayed to such a degree as to render her sufferings much more endurable. That such an effect is likely to take place, I feel like concluding from the fact that this last menstruation was not disturbed by hysteric attacks, from which my patient has frequently suffered during this period.

IV. A lady of 30 was confined, on the 19th of October, of her sixth child. Her physical condition has always been tolerably good, with the exception of slight parametritic troubles after her third confinement. This affection was combined with sacral neuralgia, which lasted much longer than the presence of chronic parametritis could be proved (even after she had been confined with two more children), and neuralgic affection of the muscular insertions along the lower dorsal and the lumbar spinous processes. Now and then she would also, when slightly out of health, be attacked with hysteric symptoms belonging to her brain and pneumogastric nerve. After this last confinement she appeared feebler and more irritable than ordinarily; and on several days, in the afternoon and evening, her temperature would rise to 103° and 104° without my being able to diagnosticate a tangible cause. She was feeble, irritable, sleepless, and had crying spells and other hysteric symptoms. She was sleepless to an embarrassing degree, neither quinia nor morphia relieving her of this symptom. Three-quarters of a grain of morphia, administered in the course of twelve hours, procured no sleep, but left her, for about twenty hours after the last dose of three-eighths of a grain, more hysterical and restless and sleepless than before. In addition, a contracted pupil, dry tongue, and delirium, showed the dose of morphia she had taken to be larger than she could well tolerate. In this condition, on the sixth evening at nine P.M. (after a dose of forty grains of bromide of potassium had been also used on the fifth with no effect or very little), a dose

of two scruples of hydrate of chloral was given internally, in two tablespoonfuls of water. Within twenty minutes she was asleep, awoke after three hours to drink water, fell asleep again; and, although getting awake from time to time, passed a good night, felt rested and satisfied in the morning, had no headache, a better appetite than any previous day, and no more hysteric attacks.

V. A lady of 48, of Brooklyn, I saw in consultation a week ago. She suffers from pulmonary consumption. There is dull percussion-sound, both anteriorly and posteriorly, over her right lung, and bronchial respiration, and partially roughened respiratory murmur, on the left side. For six weeks past, after having been hoarse for a long time, she has lost her voice from laryngeal ulcerations, which appear to be very extensive, inasmuch as the usual form, in such cases, of pharyngeal degeneration has already developed itself. She coughs a great deal; has pains belonging to the larynx, pleura, and diaphragm; and, partly from general distress, partly from fever and cough, sleeps but little and interruptedly. Morphia has relieved her for some time, but its effect, although the doses have been increased, is ceasing to be satisfactory. She took a dose of forty grains of the hydrate dissolved in but little water, on the evening of the 24th of October, and passed a better night than before, in spite of the copious laryngeal, tracheal, and bronchial secretion and cough, waking her a number of times. A single disagreeable symptom, however, was noticed, viz., pain in the ears. The patient complained bitterly, evidently from the effect of the remedy on the mucous membrane of the throat. Undoubtedly the pungent taste and effect of the agent might have been reduced or obviated either by the addition of more water, or by its mixture with a mucilage. Of this patient, no news has reached me since.

The preceding remarks are the statements of Liebreich and his followers, especially Richardson's experience and my own up to this day. Limited though this is, it coincides well in most respects with the results of my predecessors. This much is sure in my mind—that Dr. Liebreich need add no other discovery to this one, to deserve the gratitude of both the profession and mankind for his valuable addition to our therapeutical treasures. I hope I have impressed the gentlemen who have so long listened to me with the necessity of studying the subject of this paper; and I do not hesitate to express my belief that there is a great future in store for the hydrate of chloral.

For future investigations I propose the following questions:

Why is it that Richardson has met with vomiting, while neither Liebreich nor myself has been troubled with this disagreeable symptom?

Will hydrate of chloral reduce the temperature of a sick animal (say in pyæmia) as surely and steadily, in large or small doses, as in the healthy one, and is it promising of effect as a febrifuge, perhaps even happier than that of quinia.

What is the proper antidote in case of poisoning? and will the induced current prove such antidote, as some observations in my experiments appear to show?

All of these questions I take the liberty of here proposing, for your consideration and study; and if I should succeed in future in answering them, or one of them, myself, I shall feel but too happy to be permitted to state my results here, for your further examination and judgment.

LECTURES ON

THE GALVANIC CURRENT IN ITS RELATION TO PHYSIOLOGY, MEDICINE, AND SURGERY,

BEING AN INTRODUCTION TO SCIENTIFIC ELECTRO-THERAPEUTICS.

By WM. B. NEFTEL, M.D.,
NEW YORK.

LECTURE I.—Part II.

Given before the New York Medical Journal Association, October 22, 1869.

GALVANOSCOPIC CONTRIVANCES FOR INVESTIGATIONS IN ANIMAL ELECTRICITY.

To obtain currents from delicate animal electromotors, Du Bois-Reymond has invented very ingenious arrangements; improved the multiplicator,* making it the most sensitive ever known; and by certain skilful manipulations succeeded even in taking advantage of the hindering influence of the unavoidable phenomena of polarization. It was only after having completed almost all his researches that Du Bois-Reymond was enabled, by the introduction of unpolarizable electrodes, greatly to simplify the art of experimentation, which even at present belongs to the most difficult and delicate operations in electricity. Instead of the multiplicator, the reflecting galvanometer is now mostly used, as it not only shows the presence and direction of a current, but also gives the exact measure of its intensity.

Du Bois-Reymond has rendered a great service to physics, electro-physiology, and electro-therapeutics, by introducing the principle of current-branching, according to the laws laid down by Kirchhoff.

The rheochord of Du Bois-Reymond affords us the means of controlling with great precision and rapidity the strength of a current, by varying in infinitely small gradations the resistance in the accessory circuit. Another important application of Kirchhoff's law of current-branching is the so-called method of compensation. Du Bois-Reymond's compensator admirably serves to compare animal electromotors with some known galvanic combination, *e.g.*, with an element of Daniell, or to compare with one another the electromotor forces of nerves and muscles under different circumstances, etc.

If we wish to examine animal parts with regard to their electrical currents, we must bring them into the circuit of the galvanometer. But this is not so easy as it seems to be, for we have to be certain that the needle-deflection is really caused by a current having its seat in the animal part itself, and not originating at the junction of the metal with the part under examination.

Using for galvanometer-terminals apparently quite equal platinum-plates, the needle will nevertheless be deflected by a current arising from the heterogeneity of the platinum-plates, in consequence of their unsimultaneous immersion into the conducting fluid, or from some other slight physical dissimilarities.

But admitting that the metallic ends, by some skilful manœuvres, such as have been proposed by Du Bois-Reymond, be made quite homogeneous, yet a galvanic current passing through a moist conductor and decomposing it by electrolysis, will have the products of decomposition accumulate, especially at the electrodes, and call forth a secondary current having an opposite direction to the primary one. Consequently the needle-deflection will gradually diminish, disappear, or even indicate an opposite current. Fortunately a combination has lately

* Du Bois-Reymond: *Untersuchungen über thierische Elektricität*, Bd. I., p. 160.

been found which is perfectly homogeneous and unpolarizable, namely, amalgamated zinc in a saturated solution of sulphate of zinc.

To examine, therefore, animal parts, with regard to their electromotor properties, the following arrangement is requisite: Two small vessels made of amalgamated zinc, varnished externally with asphaltum, and filled with a saturated solution of sulphate of zinc. Each vessel is provided with a binding screw to receive the end of the galvanometer wire. From each vessel projects a cushion made of a bunch of filtering-paper, and thoroughly impregnated with the same saline solution. The vessels are placed near and fronting each other, with the paper cushions projecting over their edges, leaving a small space between. By approaching the vessels so that their cushions come into contact, or by bridging over the space between the cushions with a third or intermediate cushion impregnated with the same solution, no deflection of the galvanometer needle is produced, which shows the absence of any electromotor force within the circuit of the galvanometer. Therefore when, in bridging over the space between the cushions with some animal part we intend to examine, the galvanometer needle is deflected, we must conclude that the indicated current has its source in the animal part. To protect the animal tissues against the corroding action of the solution of the zinc-salt, the paper cushions are covered at the corresponding places with thin pieces of plastic clay impregnated with a one per cent. solution of common salt.

Another kind of unpolarizable and extremely useful electrodes may be thus prepared: A strip of amalgamated zinc plate is immersed in the concentrated solution of sulphate of zinc, contained in flat glass tubes, the lower opening of which is closed by a plug of plastic clay impregnated with a solution of common salt. At the upper end of the tube the zinc is connected with the wire of the galvanometer. The clay at the lower end can be modelled into any desirable shape; and when made to terminate in a point, the electrode can be applied to a single spot of the object under examination. By means of these electrodes we can derive electric currents from the most delicate animal structures without any danger of polarization. They are, besides, constructed in strict accordance with the laws of internal polarization and secondary resistance discovered lately by Du Bois-Reymond.*

The described method enables us to discover in animal electromotors the weakest currents, and determine their intensity, direction, etc. Besides this electromagnetic rheoscope, we possess two others: the electro-chemical rheoscope and the physiological rheoscope.

The electro-chemical rheoscope (electrolysis) may be used in the way proposed by the great Faraday,† viz.: the animal electromotor is brought to act upon iodide of potassium starch. The iodide of potassium being decomposed by the electric current, iodine is deposited at the positive pole, where it becomes evident by bluing the starch. The electrolysis shows the direction of a current as well as its presence; nevertheless it is seldom used, especially where very feeble animal electrical currents are to be dealt with, as it would then require the construction of a pile of the animal electromotors.

The physiological rheoscope, on the contrary, is very often used to discover electrical currents. We have already seen that Galvani, Humboldt, Nobili, considered the prepared frog as the most sensitive galvanoscope. Although this supposition is not correct with reference to our present galvanoscopic means, yet in certain important cases the physiological rheoscope cannot be replaced by any other.

Instead of the old preparation of Galvani, we now use what we shall call the galvanoscopic frog's leg (strömprüfender Froschschenkel of Du Bois-Reymond), introduced by Matteucci and adopted by Du Bois-Reymond. It consists of the skinned leg of a freshly killed frog, with its sciatic nerve from the hollow of the knee to the lumbar vertebræ.

This preparation has great advantages over Galvani's, because it presents a much longer extent of the exposed nerve, and the longer the extent of a nerve traversed by a current, the greater is the contraction, though the same current-strength be used. Again, as, according to Valli and Ritter, the process of dying of the nerve proceeds from the centre to the periphery, contractions are called forth by irritating the lower part after the reactivity of the upper part has already been lost. When introduced into a circuit, the galvanoscopic leg indicates by its contractions the presence of an electrical current, be it even so weak as not to deflect the needle of an ordinary multiplicator. A discharge of a Leyden jar of very small tension, through an imperfect conductor, will not at all affect the needle of an ordinary multiplicator, whilst it will produce a violent contraction of the galvanoscopic leg. And where, owing to its inertia, the galvanometer needle will remain at the same degree of deflection, or showing scarcely any oscillations, the galvanoscopic leg will answer with a rapid succession of contractions to the least fluctuations in the density of a current. Finally, one of the greatest advantages of the physiological rheoscope, in experiments on animal electricity, is that metals are not introduced into the circuit. A very important precaution to be taken in using the galvanoscopic leg is to insulate it carefully, by placing it upon a long glass plate, and fastening with rubber rings, or putting it into a dry test-tube, with the exception of the piece of nerve introduced into the circuit.

Electric currents in animal parts are easily detected by means of the galvanoscopic leg; for instance, by placing a whole frog, the head into one and the feet into the other of two vessels filled with a concentrated solution of common salt, and bridging over the two paper cushions with the nerve of the galvanoscopic frog, the latter will contract the moment the circuit is completed. The same result is obtained by placing Galvani's preparation between the vessels. In the frog the current is always from the feet to the head, and in the galvanometer-wire from the head to the feet. This current is present not only in frogs but also in every other animal, and, as discovered by Du Bois-Reymond, is due to the partial currents in the muscles. That it is not dependent on the nervous centres or nerves, is proved by its existing in the thigh, leg, foot, and any other parts of the body deprived of their nerves, but provided with muscles. This current depends neither upon respiration nor circulation, and is not the result of the contact of heterogeneous structures, because these latter generate no current, as has been conclusively shown by Du Bois-Reymond, contrary to the assumptions of Volta.

Finally, this frog-current, or rather the current of every animal, exists only during life, or as long as the

* A detailed description of the galvanoscopic apparatus for animal electrical experiments is given in Du Bois-Reymond's work, *Beschreibung einiger Vorrichtungen und Versuchsweisen zu electrophysiologischen Zwecken.* Berlin: 1863. See also J. Rosenthal: *Elektricitätslehre für Mediciner.* II. Aufl. Berlin: 1869. A. Fick: *Medicinische Physik.* II. Aufl. 1866, p. 332–429. In English, the work of my lamented friend, C. E. Morgan: *Electro-Physiology and Therapeutics.* New York, 1868, p. 148–188. It is to be regretted that this book contains some errors which have not been corrected, owing to the untimely death of the author.

† Faraday: *Experimental Researches in Electricity.* Vol. I., Series III., p. 89. London, 1839.

muscles have not yet lost their irritability; in rigor mortis or in the decomposed animal this current does not at all exist.

GENERAL LAW OF EXCITATION OF THE NERVES BY THE ELECTRIC CURRENT.

The galvanoscopic leg contracts only at the entering and exit of a current, viz., at the closing and opening of the circuit, but during the continuance of the current it remains quiet. It contracts also at every sudden fluctuation of the current-density in the nerve, whether in a positive or negative sense; though slow and very gradual fluctuations excite no contractions. This fundamental and highly important law of electrical irritation is expressed as follows by Du Bois-Reymond: "It is not to the absolute value of the current-density at a given moment that the motor nerve answers by contraction of its corresponding muscle, but it is only to the change of this value from one instant to another: the contractions increase the more, the quicker these changes follow each other, or the greater they are in the unit of time."

According to this law, therefore, it is clear that no direct and immediate relation exists between the quantity of electricity and its physiological effect, but on the contrary this latter merely depends upon accidental and controllable circumstances.

By this law is explained the energetic contraction called forth by the feeblest discharge of a Leyden jar, the current-density of which rapidly rises from zero to its maximum. And the strong physiological effect, amounting to tetanus, produced by the interrupted current can also be brought under the same law; as here, too, the fluctuations of the current-density are very rapid, although the quantity of electricity may be very small. The powerful effect of the electrical organ of electric fishes is based on the same principle. On the other hand, a very intense constant current will produce only the closing and opening contraction, but will give no marked contraction during its continuance. Moreover, the closing and opening contractions can be avoided if an extremely weak current be used at the beginning, then slowly and gradually increased, even to an enormous intensity, and diminished in the same way. I will here mention the well-known experiment of Ritter, who, by slowly and gradually increasing the number of elements of a battery to 200 pairs of plates, has experienced neither the closing nor the opening shock.

The same law of excitation applied to electro-therapeutics is of the highest importance. To control the fluctuations of a current, the method of current-branching is effected in the exactest way by Du Bois-Reymond's rheochord. For practical purposes, however, it can be replaced by an excellent rheostat, allowing the intensity of the current to be perfectly under control. It was advocated, from purely theoretical considerations, by Fick,* and adopted for practical purposes by Brenner.† The best apparatus of this kind is the one constructed by Siemens & Halske, by means of which any amount of resistance from zero to 2,100 units can be introduced into the accessory circuit. As unit of resistance Siemens has adopted the resistance of a prism of chemically pure mercury of 1 metre length and 1 sq. mm. transverse section, at a temperature 0°. By intercalating the rheostat into the same circuit with the human body the changes of its resistances will have a comparatively small influence upon the intensity of the current, because of the enormous resistance offered by the human body itself. But the effect will be quite different if the rheostat be used as an accessory circuit to the human body. Then two ways are open to the current, and the more resistances it meets in the rheostat, the greater the quantity of it which will flow through the body, and vice versa. By this arrangement the fluctuations of the current can be made so imperceptible as to avoid the reaction of the nerves, even of those with a morbidly increased excitability. The observations instituted in this way with the galvanic current on the human body attain a high degree of exactness and certainty, and a variety of the most interesting and important phenomena become manifest. As a further advantage, the mildness of the proceeding admits of an intense current being used without causing pain. Only by this means, as will be seen hereafter, is it possible to modify with a mathematical precision, and to treat successfully, the most uncontrollable morbid conditions of the nervous system, and especially of the higher senses.

Since I have learned to appreciate this method of applying the continuous current, I have attained quite a number of most brilliant successes, and can therefore warmly recommend it.

Another very important law of excitation is the one discovered by Pflüger:* The same stimulus applied to different portions of the nerve will not affect the muscle in the same degree, but the more distant from it is the excited nerve-piece, the greater will be the contraction. By applying to the lower portion of the sciatic nerve a simple electro-motor, for instance, an arc of two heterogeneous metals, tin and iron, no contractions will be produced; when the same arc, on the contrary, applied to the middle portion of the nerve will be followed by weak contractions, and the same again applied to the plexus sacralis will call forth violent convulsions. To demonstrate this law, two metals must be selected which are not very distant in the Voltaic series of tension, or else the maximum of contraction will be obtained already from the lower part of the nerve, and the difference then will not be so striking.

Pflüger has demonstrated this physiological law by the most exact measurements, and its practical application to electro-therapeutics is of great importance. For instance, in acting by the galvanic current on paralytic limbs, through the affected muscles or their corresponding nerves, only very slight therapeutic results will be obtained; but applying the same current to the central parts, or to the corresponding nervous plexus, the effect of the treatment will be quite different and surprising.

Lastly, the degree of excitation is in direct relation to the length of the nerve-piece traversed by a current: the greater the distance between the electrodes, the stronger will be the effect of the same current-density.† This law, which was already known to Pfaff, Humboldt, Ritter, must be applied to electro-therapeutics.

THE LAW OF CONTRACTIONS.

This law was discovered by Pfaff in 1793, although it is generally named the Ritter-Nobili law of contraction. It can be expressed, according to Du Bois-Reymond,‡ in the following way: In the great majority of cases the electrical excitation of the motor nerve calls forth a more energetic closing or opening contraction, though in general it is either the closing or the opening contraction alone, according to the direction in which the nerve is traversed by the current. The

* A. Fick: *Medicinische Physik*, II. Aufl. p. 889.
† Brenner: *Untersuchungen und Beobachtungen auf dem Gebiete der Electrotherapie*. Leipzig, 1868. p. 51.

* E. Pflueger: *Untersuchungen über die Physiologie des Electrotonus*. Berlin, 1859. p. 141.
† Du Bois-Reymond: *Thierische Electricität*, Bd. I. p. 295.
‡ Op. cit., Bd. I. p. 304.

strongest closing-contraction is caused by the current traversing the nerve from its origin to the periphery (Du Bois-Reymond's descending current), and the strongest opening-contraction by the one traversing it in the opposite direction (Du Bois-Reymond's ascending current).*

We can therefore determine the unknown direction of a current by the kind of contractions it occasions; for instance, if the galvanoscopic leg contracts at the closing of the circuit, but not at the opening, the direction of the current is from the origin of the nerve to its periphery—a descending current. To be sure of this, we only have to bring the nerve into the circuit in the reverse direction, and the leg will remain quiet at the closing, but contract at the opening of the circuit. The correctness of the indications of the galvanoscopic leg can be ascertained by applying a heterogeneous metallic arc of a known current-direction. By means of the galvanoscopic leg, therefore, the Voltaic tension-series of metals can be determined.

The innumerable experiments of Ritter, Nobili, and others have shown, however, that these phenomena depend upon the different stages of irritability of the nerves.

Pflüger† found that in the fresh nerve the differences of contractions depend merely on the intensity of the current (the contraction-law is a function of the current-intensity).

1. The fresh nerve excited by a strong ascending current always gives the opening contraction, and never the closing one.

2. But excited by a weak ascending current, the nerve will, on the contrary, give the closing contraction, and not the opening one. This law has no exception.

3. An ascending current of moderate strength produces the closing and opening contractions.

4. The descending current of any strength gives always the closing contraction.

Pflüger's law of contraction is, therefore, as follows (C. means closing; O., opening.):

Current Intensity.	Ascending Current.	Descending Current.
Weak Current.	C. Contraction. O. Rest.	C. Contraction. O. Rest.
Moderate Current.	C. Contraction. O. Contraction.	C. Contraction. O. Contraction.
Strong Current.	C. Rest. O. Contraction.	C. Contraction. O. Rest.

The laws of excitation and contraction of the motor nerves have their analogues in the sensitive and sensorial nerves; and of these I will speak in detail when treating of the organs of senses. I will only mention here Marianini's combined law of electrical contractions and sensations as the result of his experiments on living animals. According to him, the descending current acts more energetically on the sensitive nerves (increasing pain), and the ascending on the motor nerves (increasing contractions).

This law contains very valuable hints with regard to the treatment of nervous affections, both of the motor and of the sensitive sphere. The real explanation of the laws of excitation and contraction will be given hereafter.

* Vid. Du Bois-Reymond Op. cit., Bd. I. p. 361.
† E. Pflueger: Op. cit., p. 458.

LAWS OF THE MUSCULAR CURRENT.

It has already been seen that Matteucci found in the entire skinned, but otherwise uninjured, frog a continuous current, which can be easily demonstrated by connecting the head and feet of the frog with the galvanometer, as immediately the needle will indicate a current in the frog from the feet to the head, and in the galvanometer-wire from the head of the frog to its feet. The frog-current is therefore an ascending current.

Du Bois-Reymond has shown that such a current exists in every animal, and is originated by the muscles. Indeed a single gastrocnemius muscle, or any other, placed on the paper cushions of the galvanoscopic apparatus, will instantly indicate a strong current in the muscle, from its lower end (tendo Achillis) to the upper. Two gastrocnemii of a frog,* for instance, arranged in the manner of a pile, will produce a considerable electrolytic effect, will decompose iodide of potassium starch, and always show the blue spot at the corresponding heads of the muscles (positive pole).

The so-called frog-current is therefore a general muscular current, the laws of which are now to be discussed.

In the muscle Du Bois-Reymond† distinguishes the natural longitudinal section (external surface), the artificial longitudinal section obtained by cutting or tearing the muscle in the direction of its fibres, the artificial transverse section by cutting through transversely, and the natural transverse section formed by the base of the muscular fibres. The tendon, therefore, can be considered as an indifferent covering of the natural transverse section.

Introducing a muscle into the galvanometer circuit, by connecting one point of the artificial longitudinal section with a point of the artificial transverse section, a deflection of the galvanometer-needle will indicate a current in the galvanometer from the longitudinal to the transverse section; consequently the artificial longitudinal section of a muscle is positive in regard to its artificial transverse section.

The same current is obtained if, instead of the artificial longitudinal section, the natural one be substituted (the external surface of the muscle), and instead of the artificial transverse section the natural transverse section (tendon considered as an inactive conductor); hence the red surface of an uninjured muscle is positive to its tendon.

Not only are currents obtained by connecting a point of the longitudinal section with a point of the transverse section, but also from two asymmetrical points of the same section, though much weaker than the former. Of the two points of a longitudinal section, the one nearest to the equator (middle of the muscular cylinder) is always positive to the more distant point (nearest to the transverse section). And of the two points of the transverse section, the one nearest to the axis is always negative to the more distant one (nearest to the longitudinal setion).

But no currents whatever can be obtained from two points of the longitudinal section equally distant from the equator; nor from two points of the transverse section equally distant from the axis; nor, again, from two points of the equator, from both ends of the axis, or from both tendons of the muscle.

Muscular currents are derived not only from a whole muscle but also from any fractional part of the

* Du Bois-Reymond: Op. cit., Bd. I., p. 501.
† Op. cit., Bd. I., p. 501.

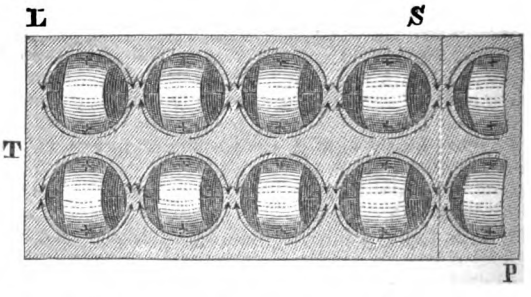
muscle, even from a microscopical piece of a primitive muscular fibre.

If, however, an oblique section of a muscle be made, the current will show an exception to the general law given here, inasmuch as the most negative point of the transverse section is not situated in its middle, but is displaced towards the acute angle, and the most positive point is no longer at the equator, but nearer the obtuse angle. In such a muscular rhombus, therefore, a point near the obtuse angle is positive in regard to a point near the acute angle, although both points may be equally distant from the middle. There exist, consequently, in the muscle-rhombus currents, constantly moving in the muscle from the acute towards the obtuse angle, in addition to the regular muscular current. These currents are called by Du Bois-Reymond, the inclination-currents (Neigungsströme),* and can be obtained not only from a muscle-rhombus, produced by oblique sections, but also by stretching a vertical section. The muscular current can be demonstrated by means of the galvanometer, by the electro-chemical method, or with the physiological rheoscope. For instance, the muscular current can be made to act as a stimulus for its own nerve, by bringing the nerve of the galvanoscopic frog to connect the positive and negative points of its gastrocnemius. As soon as the nerve touches its own muscle and tendon, the leg will contract. (Galvani's experiment of contractions without metals.)

Du Bois-Reymond has been able to demonstrate the muscular current in all animals, and even in the muscles of man, by bringing into the circuit of the galvanometer a muscle of a lower extremity, just removed by amputation.† To elucidate the above-mentioned electromotor laws, Du Bois-Reymond invented his molecular theory, which perfectly explains all the phenomena of the muscular and nervous current, and the correctness of which he was able to confirm by an arrangement of similar artificial molecules of zinc and copper. His hypothesis is analogous to Coulomb's famous molecular theory of the magnet.

According to Du Bois-Reymond‡ the muscle consists of electromotor molecules, and it is quite indifferent what shape we ascribe to them, whether globular or cylindrical, but they must possess two negative polar zones and one positive equatorial zone; their axes must be parallel to each other, and to the axes of the primitive muscular fibres. If cylindrical, their convex surface must be charged with positive electricity, and their basal surfaces with negative electricity, all the cylinders being parallel to the muscle, and imbedded in an inactive conductive fluid. Such an apparatus of peripolar electromotor muscular molecules will give all the electrical phenomena of the muscular current, the strong currents as well as the feeble ones, and the inactive arrangements; and indeed, Du Bois-Reymond has demonstrated on similar arrangements of artificial peripolar molecules, made of zinc and copper, all the phenomena of the muscular current. This arrangement of the electromotor molecules shows the possibility of obtaining the muscular currents in every fragment of a muscle, no matter how small it may be.

The inclination-currents can be explained in the same way, and it becomes evident that the least change in such an arrangement of the molecules is sufficient to produce an instantaneous enormous physiological and pathological effect. Lastly, by this arrangement can be explained the so-called parelectronomic state of the muscles.§ Sometimes the current between the natural longitudinal and the natural transverse section is comparatively feeble, or cannot at all be detected, or shows quite the opposite direction, but it will at once attain its normal strength and direction as soon as the natural transverse section is touched with some destructive agencies (solutions of alkalies, acids, heat, &c.,) and an artificial transverse section, as it were, produced. The parelectronomic condition of the muscle is produced by several influences, especially by cold, and can be explained by the assumption of a layer (parelectronomic layer) of muscular substance at the end of the muscular fibres, acting electromotively in an opposite direction to the whole muscular current. This layer at the end of the muscle, may be represented, for instance, by an abnormal molecule without an external negative basal surface, and in destroying this abnormal molecule the normal condition of the muscular current is restored.



Having shown the arrangement of the electromotor molecules in the muscle, Du Bois-Reymond* deduces the following important peculiarities of the animal electromotors:

1. That every animal electromotor is constantly in the condition of a closed circuit, as both heterogeneous surfaces are always connected by inactive conducting structures.

2. That any current, therefore, obtained from an animal electromotor by applying a conducting arc to two points of its surface, must be considered only as a fraction of the real current-intensity, as a derived accessory branch of the main current.

Consequently the current obtained from an animal electromotor, by means of the galvanometer, indicates only the presence of inherent electric currents in the interior of the muscle, but gives no exact idea of their strength, which, at any rate, must be incomparably greater than the one manifesting itself externally in our galvanoscopic apparatus.

The described electromotor properties are always present in the irritable muscle, when in a state of repose, and constitute the so-called tranquil—or quiescent—muscle current. Du Bois-Reymond found that during muscular activity, during contraction, the development of electricity diminishes, and probably in a direct ratio to the degree of contraction. Having derived from two points of a muscle a branch-current to the galvanometer, then on rapidly irritating the muscle a great many times, so as to bring it into prolonged activity (tetanus), the galvanometer-needle will recede from the position in which it indicated the current of the tranquil (quiescent) muscle towards zero, and may even enter the negative quadrant. This decrease of the muscular current during contraction, expressed by the retrograde deflection of the needle, Du Bois-Reymond calls the negative fluctuation, or

* Reichert's and Du Bois-Reymond's *Archiv*, 1863, p. 536.
† Du Bois-Reymond: *Thierische Elektricität*, Bd. I., p. 325.
‡ Op. cit., Bd. I., p. 682.
§ Op. cit., Bd. II., Abt. II., p. 88.

* Op. cit., Bd. I., p. 685.

negative variation, of the current (negative Stromesschwankung).*

To study this highly important phenomenon, tetanus of the muscle is produced in different ways, mechanically, chemically, electrically; for instance, by concussion of the brain (knocking the frog's head against the edge of a table), by slowly destroying the spinal cord, from above downwards, or applying a solution of common salt to a transverse section of the spine, or by strychnine. But the electrical method of producing tetanus is certainly the best, because the tetanus can then be perfectly regulated and controlled according to the requirements of the experiment.

To produce a strong and prolonged irritation, it is only requisite, as has been seen before, to change rapidly the density of the current passing through the nerve, which is easily done by the interrupted current. The gastrocnemius, with its attached nerve, is generally used for tetanization. The muscle being placed between the paper cushions to close the galvanometer circuit, the needle-deflection indicates the normal muscular current. Then the upper end of the nerve is put between the electrodes of the magnet-electromotor, and, as soon as the irritating current begins to act, the muscle is affected by a strong tetanus. Having produced tetanus in any of these ways, especially electrically, the retrogression of the galvanometer-needle can then be observed during all the time the tetanus continues, after the cessation of which the needle goes back to its former position, indicating again the quiescent muscular current.

As long as the preparation has not lost its reactivity, the tetanization may be repeated many times, and the retrogression of the galvanometer-needle will always be observed. But the galvanometer indicates merely a decrease of the muscular current, and for a more complete knowledge of the negative fluctuations, Du Bois-Reymond instituted the following experiment.† By using a third intermediate cushion, one space is bridged over with the gastrocnemius to be tetanized, and the other with the nerve of the galvanoscopic leg, which latter remains quiet whilst the galvanometer-needle indicates the normal muscular current. But as soon as the irritating current begins to act and the gastrocnemius becomes tetanized, the needle shows a decrease of the muscular current and the galvanoscopic leg experiences a rapid succession of contractions.

A secondary tetanus can be produced by simply placing the nerve of the galvanoscopic leg on the tetanized gastrocnemius, and even five or six galvanoscopic legs can be arranged in the following order: the nerve of the first resting on the tetanizing electrodes, the nerve of the second on the gastrocnemius of the first, the nerve of the third on the gastrocnemius of the second, and so on to the last. As soon as the irritating current penetrates the first nerve, all the legs contract simultaneously. If instead of tetanus only one single contraction be excited, the galvanoscopic leg or legs also answer by a single secondary contraction instead of the secondary tetanus.

The physiological rheoscope, therefore, furnishes here the valuable information that tetanus is discontinuous, consisting of a rapid succession of instantaneous contractions, each of which is necessarily called forth by a fluctuation of the current. The same fact can also be ascertained by the so-called muscular murmur. On applying the stethoscope to a tetanized muscle, a murmur or sound will be perceived, equal in the number of its vibrations to the number of irritations of the induced current. As the voluntarily tetanized muscle in man, during a prolonged voluntary contraction, produces a distinct sound of 19·5 vibrations in the second, the number of irritations, therefore, from the central motor organ in voluntary tetanus must also amount to 19·5 in the second (Helmholtz).

The phenomenon of negative fluctuation is not difficult to explain, by assuming peripolar electromotor molecules in the interior of the primitive muscular fibre. It is then easy to suppose that these molecules can instantaneously modify their arrangement, so as to diminish their electromotor effect, or even to change their activity to an opposite direction.

The negative fluctuation is the electrical expression of muscular activity, and corresponds to the acid reaction of the muscle during contraction. For, according to the exact investigations of Du Bois-Reymond,* the muscle reacts always alkaline while in repose.

* Op. cit., Bd. II., p. 50.
† Op. cit., Bd. II., p. 87.

* Du Bois-Reymond: *De fibræ muscularis reactione, etc.* Berlin. 1859.

Progress of Medical Science.

Emetine.—An interesting article on "Emetine," the active principle of ipecacuanha, is published by M. J. Lefort, in the *Journal de Pharmacie.* It is a light whitish powder, without smell, and of a bitter taste. Exposed to the air it colors slightly brown, but it does not attract moisture and liquefy, as stated by Pelletier and Majendie. The analysis of emetine by Pelletier and Dumas, in 1823, led to the formula $C_{30}\ H_{22}\ NO_8$, but as this base does not form crystallizable salts, its saturating power was not determined. M. Lefort has made analyses of some of the salts of emetine for the purpose of ascertaining the true rational formula. The analyses of these compounds have led M. Lefort to double the numbers given above, and to write the formula of emetine as $C_{60}\ H_{44}\ N_2\ O_{16}$.

Heart Disease and the Turkish Bath.—The *Medical Press and Circular* records another death of a cardiac person in the Turkish bath at Cork. In reply to the coroner, Dr. Shinkwin gave it as his opinion that the Turkish bath was not fit for a person in deceased's condition—with a weak heart.

New Investigations in Cerebroscopy.—M. Bonchut has recently presented to the Academy of Sciences of Paris, through M. Dumas, his researches on cerebroscopy, which is offered for competition for the Montyon Prize in Medicine and Surgery.

On the Treatment of Paralysis.—A. D. Rockwell, M.D., of New York, in a paper read recently before the New York Academy of Medicine, "On the Treatment of Paralysis by Electrization," sums up the leading ideas advanced, as follows: 1st. Paralysis is not a disease, *per se*, but is merely a symptom of some disturbance of the central or peripheric nervous system. The treatment of paralysis should have reference not alone to the affected parts, but also to the general condition of which it is the result, or with which it is associated. 2d. Paralysis—throwing aside the toxic, traumatic, and local varieties—is pre-eminently a symptom of exhaustion or weakness of the nervous system. It occurs most frequently among the cultivated and the intellectual. It is a malady of the two extremes of life—infancy and old age. 3d. The two cardinal principles of treatment of paralysis are, in the first place, to administer remedies directed to the re-

moval of the cause, that is, the condition of the system, or the local injury of which the paralysis is a symptom; and, in the second place, to restore the tone and nutrition of the affected parts. The first condition is met by the administration of strychnia (internally or hypodermically) when the central nervous system is anæmic; in the use of iodide of potassium, ergot, belladonna, and bromide of potass, when the spine or brain is congested or inflamed; and by the use of general tonics, such as bark, iron, phosphorus, arsenic, and oxide of zinc. The second condition is met by rubbing, shampooing, etc. Electrization, general or localized, with the varying use of the galvanic or faradic currents, fulfils these indications better than any other method of treatment. It benefits paralysis by virtue of its tonic effects on the nervous and muscular system. 4th. In the treatment of paralysis by electrization, the distinction between the effects of the galvanic and faradic currents *is of radical and indispensable importance.* An intense, penetrating galvanic current, from 50 or 100 cells of Chester's air-tight battery, will overcome far greater resistance than the faradic; will produce muscular contractions in paralyzed limbs when the faradic is powerless, and will also more directly and positively affect the great sympathetic. 5th. Fresh recent attacks of a local character are sometimes very quickly relieved and cured by the faradic current alone; but long-standing and severe cases, that constitute the majority, demand the varying and persevering use of both the galvanic and faradic currents for weeks and months. 6th. The prognosis is far more favorable than is commonly supposed. During the past two years he has treated by electrization, general and local, and by the varying use of the faradic and galvanic currents, seventy cases of paralysis, resulting from a variety of causes, and manifesting itself in different parts of the body. Of these 70 cases, 16 were supposed to result from cerebral effusion, causing hemiplegia; of this number 11 suffered from paralysis of the right, and 6 of the left side; 3 of the cases were approximately and 2 completely cured; 3 were very markedly benefited; 3 discontinued treatment after a few visits; in 3 cases only slight amelioration was evident, while 2 failed to receive any benefit whatever.

Four cases of complete facial paralysis, 2 of which involved the right side, 1 of the left, and 1 both sides of the face.

With the exception of the case involving the 7th pair on either side following syphilis, they were all quickly and completely cured. Anæsthesia occurred 20 times. In 9 cases the cure was complete; 9 were approximately cured, while 2 discontinued treatment before any result could be seen. Four cases of complete paraplegia: 3 of which received no benefit whatever, while 1 was approximately cured after a protracted course of treatment. One of the patients died while under treatment.

Eight cases of infantile paralysis, probably of a reflex character. Four of these patients were completely and rapidly cured, and 2 were approximately cured, while 2 received no benefit whatever.

Twelve cases of paralysis were treated, each of which involved but one limb of the body. One of these was approximately, and 5 completely cured; 4 derived marked benefit, while 2 discontinued treatment before any result was noticed.

Four cases of palsy agitans, but in one case only did Dr. R. succeed in obtaining even a slight amelioration of the symptoms. Writer's cramp occurred twice. One patient recovered considerable power in the affected hand, while the other experienced no relief worthy of mention.

THE ELECTRIC BATTERY IN OPIUM POISONING.—A case of opium poisoning is reported in the *Annales d'Electricité*, by Dr. Iram, which recovered on the application of the electric battery, the two poles having been placed on the neck and perineum, after the useless employment, for several hours, of tannin, coffee, and tartar emetic. The patient was a lady who had taken 0·5 grammes of opium in the shape of pills.

WATERMELON IN DIARRHŒA.—Dr. S. G. Webber, of Boston (*Boston Med. and Surg. Journal*), alludes to the powerful diuretic properties of ripe watermelons, and favors their use in diarrhœa. He mentions two or three cases of diarrhœa which were cured by eating them, and asks: May it not derive its diuretic power from a vegetable acid or salt, by virtue of which it has a general sedative action?

NON-SPECIFIC UTERINE AND VAGINAL DISCHARGES IN PROSTITUTES.—Mr. James R. Lane, Senior Surgeon to Lock Hospital, London (*British Med. Journal*), states that when the vaginal discharges are of a purely local origin, and there is no constitutional fault, their cure may be quickly effected by vaginal injections—made by the patients themselves, three or four times daily. The lotions employed in the Lock Hospital are the diluted liquor plumbi subacetatis, or solutions of alum, tannin, or sulphate of zinc, in the proportion of five grains to the ounce of water. The syringes should be large enough to hold six ounces of the lotion, and have a pipe long enough to reach the upper part of the vagina readily. When the vaginal mucous membrane is inflamed and tender, the house-surgeon, when the speculum is used, inserts twice a week a strip of lint dipped in the lead lotion, and this is allowed to remain three or four hours. If the inflammation be acute, the application of the strip of lint is repeated daily through a small speculum

In cases complicated with discharges from the interior of the cervix-uteri, an application, to the os and cervix, of nitrate of silver, either solid or in solution, is the remedy most in favor, especially in the early stage, when the discharge is purulent; later, tannin, alum, or per chloride of iron are employed.

A SIMPLE TREATMENT FOR INGROWING TOE-NAIL.—J. M. Quigley, M.D., Cassville, Mo. (*Med. and Surg. Reporter*), adopts the following course in these affections: A triangular notch is made midway in the free edge of the nail, extending to its body—the piece out of which should be in size about like the tooth of a tenon-saw; from the pointed margin of this notch, a furrow is made as near to the quick as possible, without penetrating it, through the middle of the root as far as the duplicature of skin; a piece of cork is then inserted under the nail, whose bulk is large enough to extend a few lines on either side of the notch, as well as to compactly fill, without uneasiness, the interspace between the skin and extremity. This completes the operation.

In a few hours relief is marked, rapid improvement follows. The elevating tendency of the cork causes the corners to raise from the inflamed flesh, while, at the same time, the furrow through the centre allows the nail to flatten, and the burrowing edge of the ingrowing corner to eventually pass over and beyond the limited space of its former confinement.

TREATMENT OF EPILEPSY.—Geo. Johnson, M.D., F. R. C. P., Phys. to Kings College Hospital, advocates chloroform in connection with bromide of potassium in this affection. Chloroform wards off a threatened fit, and cuts short a violent and prolonged paroxysm.

THE MEDICAL RECORD.

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New York, December 1, 1869.

WOMAN'S RIGHTS IN MEDICINE.

IT would be indeed strange, when the woman question is so much agitated in every circle, if every now and again it did not bring itself before the medical public. The occasion for its claiming attention again has been given in the recent action of a party of medical students in Philadelphia. In order that the whole affair may be understood and appreciated, we will give it in some detail. It appears that the managers of the Pennsylvania Hospital had granted permission to some female medical students to attend the clinics of that institution. As might be expected, these ladies gladly availed themselves of the opportunities thus offered, and some thirty in number were present at the appointed time. It so happened that some of the managers were also on hand, to witness the effects of this innovation. The lecture-room was crowded with some three or four hundred medical students from the different medical schools of the city, and all the conditions were fulfilled for a disgraceful scene. First of all the cry of "Hat, hat," was raised against the managers, who sat after the fashion of "friends," with their hats on. Soon a hundred voices took it up, and the confusion occasioned by it was only arrested by the appearance of the lecturer. Everything seemingly went on well, until a male patient with an un-united fracture of the thigh was brought in and the points of the case presented to the class. In the course of his remarks, the surgeon took occasion to measure the limb, when an accidental exposure of the patient's person occurred. This was the signal for an explosion from the male students in the shape of hisses, jeers, stamping, shouting, laughter, and profanity. The lady students, to their praise be it said, sat calm and unruffled under this shameful and brutal treatment, with their eyes riveted upon the lecturer. It is not at all surprising, after this occurrence, that, when the class was dismissed, a number of the male students were ready to heap further indignities upon the ladies, and we are told by an eye-witness that the gentlemen (?) crowded the footwalks and compelled the ladies to take the cartway as they crossed the hospital grounds, the former being in the meantime unsparing in their jeers and derisive applause.

These are the facts of the case, and every right-minded medical man must admit that they are quite suggestive. The mere fact that a party of medical students see fit to enter a protest against females studying medicine is not by any means very significant. Whether they presumed to decide for the profession at large that a lady should not be a physician we do not know, neither do we care, for we have thoughtful, nay intelligent, men enough in our ranks to meet the question and discuss it in all its different bearings, and, if not, we could hardly expect new light from the medical students of Philadelphia.

What should really concern us as a profession is the low standard of moral character which seems to have obtained among the students in question. If such is to be taken as the type of the generality of those who are at present studying medicine, what shall we be able to say for the future honor and dignity of our calling?

No right-minded medical man can make himself believe that there was the slightest excuse for the disgraceful conduct referred to; and, no matter what his prejudices against female doctors may be, he is forced to admit that the behavior of the medical students toward those females was to the last degree ungentlemanly, indecent, nay, ruffianly. It savored much of that spirit of bullying at the polls, of which we still hear so much in times of general election, and there is about as much absolute justice in one as in the other.

One of the main requisites which society claims of the medical profession is, that it be composed of high-minded gentlemen. The very knowledge of his art, which entitles him to become a member of our fraternity, necessitates his abhorrence of vulgarity in every shape. All sexual distinctions are levelled in the consideration of abstract science; he attends a confinement or passes a speculum with as much impersonality as he would strap a testicle or operate for hydrocele. The community, appreciating this character, gives the medical man every confidence, and trusts him with secrets which are not even whispered to any other. What, however, is the promise of a set of young men, who, calling themselves students of our profession, can, on the accidental exposure of a man before a few females, hoot and jeer as if they delighted in the exhibition? If the females were guilty of indelicacy in being present at the time, that was their own concern. Certain it is that the male students present did not prove by their conduct to be the proper persons to show them the error of their ways. If a man wishes to trim a tree, he does not usually, for his own safety at least, saw off the limb on which he is standing.

We have been assuming, for the sake of the argument, that the female medical students were in the wrong in being present at the clinic. The fact, however, is to the contrary, making the case still worse for the

self-constituted guardians of professional morals. All this show of outraged delicacy on the part of the male medical students was purely gratuitous. It seems from the sequel that there was no intention on the part of the females to be present at such a time; in fact, the understanding had been, between the Faculty of the Woman's Medical College of Philadelphia and the managers of the Hospital, that the students of the former should attend on alternate clinic days only, so as to allow ample opportunity for the unembarrassed exhibition of special cases to other students by themselves. From the report of the Committee of the Faculty of the Female School in regard to the position of female medical students, in view of the discussions brought about by this very affair, we quote the following unequivocal language: "We believe, as we have always done, that in all special diseases of men and women, and in all operations necessarily involving embarrassing exposure of person, it is not fitting or expedient that students of different sexes should attend promiscuously; that all special diseases of men should be treated by men in the presence of men only, and those of women, where it is practicable, by women in the presence of women only." It therefore appears that the whole misunderstanding of even the intention of the female medical students was based on the merest accident, which, if allowed to go unheeded, as common courtesy would have prompted, would have saved the character for decency which those male medical students otherwise so unfortunately for the cause of medicine lost. With this understanding of the case, another point, viz., that having reference to the granting of clinical privileges in our hospitals to female medical students, comes up for a passing consideration. Whatever objections may be urged against female physicians and female medical students, one thing is pretty evident, that they are in earnest in their endeavors to master our art. In order to prove a position which the majority of us have assumed, that they are really unfit for physicians, we should first give them all reasonable opportunity to become thorough ones by occasional attendance in our wards by themselves, and secondly see how they work afterwards. In such a view we can soonest arrive at the solution of one of the main points in this now vexed question.

A Scotch Farmer's Views of a Practitioner's Fee.—A tale is told of a Scotch farmer, who protested loudly against the apparently modest sum of half a crown a visit for attendance on his wife. "Eh! it's just ruinous! Half a crown! And I can ha' a coo-doctor for three an' sax-pence." Inasmuch as the human body is neither eatable nor saleable, he reckoned it as of inferior worth to the bovine.—*Lond. Quarterly Review.*

Works Selected by the New Sydenham Society.—The following interesting works will be published by this enterprising society: "Niemeyer's Lectures on Phthisis;" "Wunderlich's Treatise on Temperature in Disease;" and "Stricker's Manual of Human and Comparative Histology."

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, October 7, 1869.

Dr. H. D. Bulkley, President, in the Chair.

After the usual preliminary business, Dr. James R. Leaming read a paper upon

PLEURITIS.

He spoke of the great frequency of the disease, and of the constantly recurring evidences, both in the autopsy room and under the stethoscope, of its subacute form having existed unrecognized, though not the less potent for ill in crippling the lung by adhesions, thereby permanently lowering the patient's vitality, and acting as a determining cause and powerful ally of tubercular phthisis.

After detailing the symptoms of acute pleuritis, the speaker said that "from the beginning it is accompanied with congestion of the lungs, and, unless aborted by heroic treatment, becomes pleuro-pneumonia. Indeed, it is owing to the pulmonic complication that the symptoms are so violent." Even before the appearance of these rational symptoms, careful auscultation would discover signs of its approach, in the muffling, by congestion, of the respiratory murmur, and in the slight jar produced by the dryness of the pleural surfaces. "The disease once established, and lymph thrown out upon the pleural surface, and exudative matter into the true respiratory system of the lungs, with effusion of serum into the cavity of the pleura—the activity of the rational signs subsides, . . . but some of the physical signs remain. In three or four weeks the exudative matter will have been resorbed or expectorated, the serum in the pleural cavity will have disappeared, and the lymph alone will remain to cause thickening of the pleura or adhesions, to be slowly removed by time."

The speaker dwelt upon the symptoms and pathology, to give force to his views of treatment. Immediately upon the sudden invasion of the acute disease, was "the time for vigorous treatment, to arrest this inflammation before lymph is thrown out to damage the lung by adhesions—general bleeding, cupping, or leeching, to be followed by a large dose of calomel." This dose must be large—twenty, thirty, forty grains, according to circumstances—not for its purgative, nor yet for its constitutional, effect; the former was undesirable, the latter disastrous; but "to produce a profound impression upon the great organic nervous system," which would seem to have lost its wits, and which nothing would bring to its right mind like the sedative dose of calomel. One vigorous blow, and the work was done. Or, if the stitch and the congestion were not thus at once relieved, a large fly-blister and a few days' rest would restore the patient to perfect health, and leave the lung undamaged by adhesions. But if nature had been left to struggle alone for a few days, till the disease had gained the mastery, and effusion and exudation taken place, then active treatment would be only harmful. We must then avoid all depressing agents, especially blisters (which would be likely to cause further exudation), and simply sustain nature by special care for the digestive function.

Next was given the clinical history of subacute pleuritis, with its insidious approach and silent effusion, the patient hardly aware of any illness, or referring his increasing *malaise* to anything but its proper source. Such cases, as above mentioned, might go through their whole course, and the disease be unsuspected. Physi-

cal examination alone could detect it with certainty; and early detection was the more important, in order to avert the terrible sequela, tubercular consumption, which the speaker thought would be generally admitted as frequent. His own experience had led him to attribute a majority of the cases of consumption to pleuritic adhesions as a determining cause.

How prevent these adhesions? or how, when formed, prevent their worst effects? Nature does the first by keeping the pleural surfaces apart, by means of the effused fluid, till the lymph has become so changed that strong adhesions are less likely to form. We should follow her, and not attempt removal of the fluid till this danger is over. Too often the opposite course is taken, and with the saddest results, not only from thwarting nature's conservative action, but also from the effect on the kidneys and the digestive organs of the blisters, diuretics, and drastic cathartics employed. If, after a proper time, the serum be not absorbed, we should resort, not to medicine, but to the trocar.

The adhesions once formed, the patient must be sustained and placed under the best hygienic conditions. Rubbing the chest with turpentine or the compound iodine ointment, and the long-continued use of muriate of ammonia, were very well; but of far greater moment was "the habit of steadily filling the lungs with air, whilst raising the arms above the head; then, holding the breath, to bring them downwards and outwards till they press upon the sides, before allowing the breath to escape. This fills the lung to its utmost capacity, which it is difficult to do in any other way." It tends to elongate the adhesions, and, in so far, to relieve the crippled lung; besides largely increasing the vital capacity, and so diminishing tubercular tendencies.

In adhesions allowing some motion of the lung, auscultation would discover a peculiar soft, subcrepitant sound, like that of tearing flannel, produced by the stretching of the fibrinous bands—all the crackles being in one plane, and moving in one direction. If the lung had little or no motion, though this sign might be absent, yet "the broncho-respiratory murmur would come to the ear in inspiration, altered, harsh, and jarring; the same sign would occur in thickening; and the percussion-note would be sonorous, flat, and wooden."

Intercurrent pleuritis, when occurring in connection with cardiac or renal disease, showed no great tendency to plastic deposit. That attendant upon tubercular phthisis, on the contrary, was apt to form strong adhesions. It was always circumscribed, often quite narrowly; and the exudation of lymph must be regarded as conservative, acting as a derivative from the inflammatory process in the lung, enforcing rest of the part, and preventing perforation of the pleura and its serious consequences. It should not, of course, be interfered with.

Circumscribed pleuritis might be diagnosticated by the dull space where the respiratory sounds are absent, surrounded by a ring of subcrepitant râles, denoting stretching of the adhesions. Where a complication of pneumonia, it might without care be mistaken for tubercle. Occasionally, however, the ring of adhesions might form a small sac between the opposed pleural surfaces; and this, becoming filled with fluid, instead of deadening the respiratory sounds, might transmit them with increased resonance; and, if in the neighborhood of a distended colon, it might give a tympanitic note on percussion. The speaker related cases in illustration of this fact, which he attributed to the facility with which "compressed" fluid receives and conveys sonorous vibrations.

Dr. Chamberlain asked Dr. Leaming what indications he would consider warranted paracentesis, while the effusion was still supposed to be non-purulent.

Dr. Leaming thought a considerable time should elapse before resorting to the operation—from six weeks to two, or even three, months, if the patient's strength would allow. But we must watch this, for the continuance of the fluid in the chest tended to depress vitality.

Dr. Chamberlain had been surprised at the reported successes of Professor Dupré, who practised very early paracentesis in all cases of pleuritic effusion, whether the amount of fluid were large or small. He had himself supposed a certain persistence of the effusion, in spite of other measures, necessary to justify puncture. One of the means he had found most useful in producing resorption was the continuous application of hot fomentations,—flannels wrung out of hot water and covered with oiled silk. He had considered them particularly suited to those cases of pleural effusion dependent not upon structural alteration in the pleural membrane, but upon a simple disturbance of the balance between exhalation and absorption, as in cardiac hydrothorax.

Dr. Leaming said that Dr. Bowditch, of Boston, who introduced the treatment by early puncture, had abandoned it, as he found that either the fluid returned or he got adhesions.

Dr. Peaslee had been much interested in the cases of Professor Dupré, who claimed to have jugulated pleurisy by early paracentesis. He thought this practice based on correct principles, and not so contradictory to Dr. Leaming's views as might at first appear. Why should not acute pleurisy be thus aborted, just as is acute orchitis by tapping the tunica vaginalis? In every case of true inflammation of a serous membrane (not of passive effusion, as in hydrothorax), the fluid poured out was an exudation of liquor sanguinis, not a simple effusion of serum. In the non-inflammatory serous effusions there was no possibility of the formation of false membranes, for there was nothing to form them of. But in the true inflammatory exudation we had the material for adhesions; and if it could be removed at once, before its fibrin had time to coagulate, then no false membrane could be formed; for the inflammation exhausted itself in the exudation, and unless this were lighted up anew, the pleura could pour forth no more fibrinous material. But if you tapped later, you got nothing but serum; you left all the fibrin behind, and left the apposed surfaces in the most favorable position for it to glue them together. If you delayed your tapping till the exudation had existed a week, it was too late to prevent adhesions, and must be still further delayed, as Dr. Leaming had said, as long as the patient would bear it; but if you could tap within twenty-four hours, the evil might be entirely prevented.

MOELLER'S COD-LIVER OIL.

Dr. Sayre spoke of the extreme difficulty of getting any cod-liver oil that patients could digest. Of late years it had become almost impossible; and the reason lay in the objectionable mode of procuring and preparing the livers, of which he gave a graphic description. Some years ago he had brought from Newfoundland samples of a pure article made by Mr. Archibald, in the only way in which a pure article could be made—by cutting the fresh livers in fine pieces, placing them in a warm vat, and letting the oil slowly render; no pressure must be used to mingle the fibre of the liver with the oil, and no high temperature. Archibald's oil was no longer obtainable; and the speaker had begun to despair of finding any to equal it. But he had, two

years since, found an oil prepared according to the same process by Möller, of Christiania, Norway, which was perfectly pure, and in every respect all that could be wished. Measures were being taken for its speedy introduction to this country.

Dr. Boeck and Dr. Hanbury Smith fully endorsed Dr. Sayre's remarks as to the uniform excellence of Möller's oil, and testified to the high estimate placed upon it at home.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, November 1, 1869.

Dr. George T. Elliot, Jr., President, in the Chair.

The President, on calling the meeting to order, made the following address:

PRESIDENT'S INAUGURAL ADDRESS.

Gentlemen—The distinguished honor of a unanimous re-election to the office of President of this Society has been conferred upon me by your votes, notwithstanding the statement of my earnest conviction that the principle of rotation in office would best promote your interests. Such a spontaneous expression of confidence and good feeling from a society numbering over three hundred resident members, of whom an average of one hundred are in regular attendance at the meetings, is an honor to which no one could be indifferent, and for which I am myself grateful.

Animated by the same thoughts expressed in my first inaugural, and sustained by your encouragement, it will be my endeavor this year to extend still farther the usefulness of this Society, jealously to guard its time and opportunities, to add to its numbers, and to excite an honorable emulation among its members for its and their advancement.

I shall still seek to persuade those of large experience to lay before you the golden fruit of their ripe reflections; I shall still encourage the diffident to uncover that talent which lies buried in the napkin, and to use it for the benefit of our profession and of mankind; I shall always remember that this cosmopolitan city is the arena where from all parts of our common country, and from abroad, men come to struggle for the highest prizes; and shall endeavor impartially to recognize the duties of hospitality, to interweave and strengthen existing bonds of union.

Let us all strive to advance the time when the massive mural crown of gold, which typifies the solidity and wealth of this commercial city, shall be pointed to with greater pride as the setting for the precious jewels of learning; when the atmosphere of the warehouse and counting-room and factory shall still further feel the bracing and beneficent influence of the "difficult air from the keen mountain top" of knowledge; when the professions shall once more take their fit and proper rank and places; when divinity, purged from the defilement of struggle for wealth and ease, shall lead the earnest ranks through the temptations of time to the happiness of eternity; when law with unstained ermine, prompt to defend and swift to pursue, shall emulate on earth the majesty of celestial justice; when the sacred legion of medicine, battling for the welfare of mankind, and intent on highest aims, shall stand in bright and recognized contrast to that despicable horde of camp-followers and pretenders, now so often intermingled with its ranks as only to be distinguished by the members.

A great practice, accumulated wealth, and popular renown, are not the chief tests for the true physician, who knows that all these may co-exist with ignorance, pretension, and deceit. The highest reputation is based on the judgment of the profession; while this judgment is motived by the proofs which the aspirant can give, and these can only be given in the hospital wards, the professional chair, the medical societies, the medical journals, and the medical press.

Let no man complain that he has not an opportunity and a chance. Until recently the difficulty has been for editors of journals, presidents of societies and medical book publishers to persuade the profession to enter the avenues to true distinction opening before them; and even yet the President of this Society has had no holiday task. But the times are improving; the societies are filling; men are more willing to do what is their duty to themselves and to their profession; the young begin to see that their rapid advancement depends on the right use of these opportunities; the old find, in published papers and in records of debate, evidences of talent which allow a wider selection from competitors for places than had been given in the more limited range of a personal acquaintance.

The profession is developing a higher and a nobler vitality, which must culminate in the greatest reverence for learning, and its practical applications will cease to be the sole desiderata. Slowly but surely these changes must come, and the wonderful alterations in the medical status of N. Y., during the last quarter of a century, foreshadow the hastening influences of the future.

During the year to come let us each and all do our share in the work before us. Men die, but their recorded experience and judgments live. Familiar faces soon moulder in the dust, familiar voices soon are hushed for ever; the personal experience and that ripe judgment which we seek and value—if not recorded—die with their possessors, and the gathered treasures of a lifetime of thought and observation, more durable than the monumental brass, are lost to the world.

Some plead in extenuation that lack of time which has very rarely truthfully prevented the production of a written paper, for it is not necessary that such a paper shall be produced within a given limit of time. Some defer the task until they shall arrive at the limit of their experience, but experience is illimitable and bounded only by death; for whatsoever we learn only teaches us what next to study.

The young may say that they have as yet learned nothing of great importance from their limited opportunities, but they are the very ones who should bring together the widely scattered records of the experience of others on imperfectly understood topics; while all may give the Society the encouragement of their presence, and contribute in debate such thoughts of value as the paper of the evening may suggest.

And now, in memory of the year which has gone, and as an encouragement for that which is to come, let me conclude by reading a synopsis of last year's work, with the hope that we may surpass it in amount and equal it in value.

Nov. Meeting, 1868.—Paper by Dr. Van Buren, "On Some Points in the Treatment of Stricture of the Urethra." Discussion by Drs. Jas. R. Wood, J. W. S. Gouley, Gurdon Buck, Rob't Newman, Benj. Howard, A. J. Chadsey.

Dec. Meeting, 1868.—Paper by Dr. J. Marion Sims, on "The Relations of the Microscope to the Treatment of Sterility." Remarks by Dr. Peaslee, and others.

January Meeting, 1869.—Paper by Dr. W. A. Hammond, on the "Physiology and Pathology of the Cere-

bellum." Remarks by Drs. J. C. Dalton, A. Flint, Jr., and Neftel.

February Meeting.—Paper by Dr. T. A. Emmet, on "The Surgery of the Cervix, in connection with the Treatment of Certain Uterine Conditions familiar to all." Remarks by Drs. Noeggerath, Budd, Peaslee, Isaac E. Taylor, Roberts, the President, and Vice-President.

March Meeting.—Paper by Dr. F. D. Weisse, on "Mr. Lister's Antiseptic System of Treatment in Surgery, with Demonstrations of his Mode of Dressing Wounds." Remarks by Drs. Squibb, Jacobi, Chadsey, Smith, Stein, and Chamberlain.

Adjourned March Meeting.—Paper by Dr. D. H. Goodwillie, on "Nitrous Oxide and some of the recently introduced Anæsthetics, with Demonstrations." Remarks by Drs. Post, Peaslee, Bulkley, Roberts, Bibbins, Kennedy, Newman, and the President.

April Meeting.—Paper by Dr. Geo. A. Peters, on "Acupressure." Remarks by Drs. Buck, Post, Krackowizer, Hutchinson, Little, Peaslee, and Howard.

May Meeting.—Paper by Dr. A. Flint, Sr., on "The Prognosis in Bright's Disease." Remarks by Drs. Knapp, Newman, G. W. Smith, Neftel, A. H. Smith, Peaslee, Hanbury Smith, Caro, Stone, O'Sullivan, and the President.

June Meeting.—Paper by Dr. Salvatore Caro, on "The Treatment of Summer Complaints by Bromide of Potassium." Remarks by Drs. Calkins, Garrish, Chadsey, Kennedy, Farnham, and the President.

September Meeting.—Paper by Dr. H. D. Noyes, on "Defects of Form of the Eyeball, causing Defects of Sight." Illustrated by the Magic Lantern. Remarks by Drs. Buck, Roosa, and Knapp.

October Meeting.—Sixty-fourth Anniversary Meeting.

Number of new members, 43; number of resident members, 323; average number present at each meeting, 100. Number of deaths, 6, viz: John W. Sheppard, John O'Reilly, Robert H. Maclay, Alex. H. Stevens, H. N. Wilhelm, Henry D. McCarten.

The President announced the admission to membership of Drs. J. Ackerman Coles, Justus J. Spreng, Luis F. Sass, and Rufus P. Lincoln.

He also announced the death, in Brooklyn, October 17, 1869, in the eighty-fifth year of his age, of Dr. James L. Phelps, a member of the Society since July 6, 1812.

Next was announced the appointment of the following committees for the ensuing year:

STANDING COMMITTEES.

Committee on Library.—Drs. H. Mortimer Brush, E. H. M. Sell, R. J. O'Sullivan.

Committee on Intelligence.—Drs. Alfred Underhill, Charles Carroll Lee, Robert Newman, John Shrady, Frederick A. Burrall, Meredith Clymer, Frederick G. Snelling, Andrew H. Smith, A. D. Rockwell, Wm. T. Lusk, Bradford S. Thompson.

Committee on Meteorology.—Drs. William F. Thoms, Daniel H. Goodwillie, Everitt Herrick, Alonzo Calkins, Iretus G. Cardner.

Committee on Diseases.—Drs. Samuel T. Hubbard, Elisha Harris, William B. Neftel, Charles A. Leale, James B. Nelson, Henry G. Piffard, Robert R. Gibbes, Marcus P. Stephenson, Howard Pinkney, Moreau Morris, Truman Nichols, Samuel A. Raborg.

Committee on Finance.—Drs. William B. Bibbins, William T. White, Edwards Hall, Cornelius E. Billington.

CHLORAL.

Dr. A. Jacobi read a paper upon the new anæsthetic, *the Hydrate of Chloral*, exhibiting a specimen of the drug, and demonstrating its effect upon a living rabbit. The paper we give in full on p. 433.

Dr. J. C. Peters said that, in rising to speak, he labored under the great disadvantage of having made no experiments with the substance in question; indeed, the only ones thus far made in this country were those of Dr. Jacobi, who had, moreover, referred to nearly all the published experience on the subject except that of Spencer Wells. This surgeon had employed it in the removal of a large fibroid tumor of the uterus. He was convinced of its value for the relief of pain and the reduction of temperature, without producing nausea or other unpleasant symptoms. The substance was not as yet manufactured here, though Caswell and Mack had it in the course of preparation. (A liquid specimen, and one imperfectly crystallized, were shown.) An important point in its administration by the stomach, was to give it in considerable water, together with syrup of orange-peel or something of the kind. In this form children would readily take it.

In the introduction of the hydrate of chloral, Liebreich had aimed at avoiding the bad effects of other narcotics and anæsthetics, particularly opium and chloroform. But we were already in a better position for using morphine without such effects than even a few weeks ago. Two chemists, Matthiessen and Wright, had succeeded in depriving this agent of its emetic principle, and obtaining a substance, *apomorphine*, that gives the desirable narcotic effects without nausea and headache. Then, too, we were learning to use chloroform hypodermically, and so to escape those evils which, as Dr. Jacobi had shown, are dependent upon its irritant action on the mucous membranes. Some of Richardson's experiments, in proof of its safe employment thus, had been alluded to, and his results were corroborated by those of Dr. Charles Hunter. Richardson decidedly preferred it to hydrate of chloral for subcutaneous injection. Neither of these gentlemen had found it produce abscess, or even noticeable irritation, of the skin or subcutaneous cellular tissue. But others had failed, and got the abscess without the anæsthesia. It must be regarded as pretty well proven, by Liebreich and Richardson, that the effects of the hydrate of chloral were due to its liberation of chloroform in the blood. But there was the difficulty that formic acid is liberated at the same time, and formate of soda produced. Used in large amount, the drug caused almost irreparable injury to the blood, by the destruction of its corpuscles.

The *bichloride of methylene* was now being extensively tested in Guy's Hospital; Mr. Rendle, in the ophthalmic wards, was using it exclusively in all his operations, which, being mostly confined to the eye, were commonly brief. In his first set of cases, twenty in number, he found anæsthesia less readily produced than by chloroform, and a larger quantity of the substance required. As it was still dearer than chloroform, this was an important point. He then invented an inhaling apparatus, by means of which he was enabled to bring the patients rapidly under the influence of the bichloride; and in his second set of cases, numbering one hundred and twenty-three, he had found one drachm sufficient to produce anæsthesia, and maintain it for five minutes; in no case was it kept

up beyond fifteen minutes. A noticeable feature in these cases was the entire absence of muscular excitement. But vomiting occurred in fifteen of them. One or two showed some signs of collapse, but speedily recovered under a very simple procedure, always employed in such cases in Guy's Hospital, and, whatever its *rationale*, said to be uniformly effective; it consists merely in turning the patient slowly over on to the left side. The advantages claimed for the bichloride by Mr. Rendle were, that the patients can be rapidly and completely anæsthetized; that they as rapidly and completely recover; that they retain their normal color and appearance; and that they never die from the anæsthetic. Unfortunately, the next numbers of the journals contained the report of a death from the bichloride of methylene, though administered by the experienced hand of Dr. Peter Marshall. The patient was much reduced by malignant disease.

Dr. Harley had found that the juice of *conium*, in large doses, produces complete muscular relaxation; that it can be given thus with perfect safety; and that then a very small dose of opium will produce a decided effect. Thus large doses of opium can be dispensed with; for the conium causes no nausea or after-prostration, and the patients speedily recover from its action. Another point brought forward by Harley was, that by the use of one ninety-sixth or one forty-eighth of a grain of atropine for subcutaneous injection, in combination with morphia, nearly all the bad effects of the latter are prevented. [Brown-Séquard has long followed this practice. See MEDICAL RECORD, vol. i., pp. 226, 227.]

All these faithful experiments, which, for the last twenty-three years, had been made in the search for the safest and most effective means of giving relief from pain, would seem to be but efforts for the recovery of a lost art. We were all familiar with the significant passage given in Stillé's Materia Medica, from the Natural Magic of Baptista Porta, who says of a certain substance, that its vapors plunge one into the most profound sleep, whence he cannot be aroused without the greatest effort, and that, after the sleep, no bad effects remain. This substance was conjectured to have been ether. Lately one of the most accomplished gentlemen of this city, who, at the age of eighty-four years, still kept up his interest in everything good, had called the speaker's attention to a passage in Middleton: "I will imitate the pities of the old surgeons, who, before they plied their art, lulled you to slumber, then cut the diseased part." Middleton was contemporary with Shakespeare.

DR. MCCREADY, being called upon, said that he had no experience with the hydrate of chloral; but, since he had seen so many new remedies fail to fulfil the expectations they had at first raised, it was but prudent to suspend judgment with regard to the merits of this. Chloroform was used a long while before it was found out that it damaged the stomach, spoiled the blood, and left behind it bad effects that might require days and weeks to overcome. Liebreich, however, who already stood as one of the first medical chemists in the world, should receive all credit for his careful experiments. It seemed remarkable that the feeble alkalinity of the blood should be able to liberate the chloroform from the hydrate of chloral, and Richardson's experiments with blood outside the body appeared to have been rather loosely conducted. If it were true that this reaction took place, and that the effect of the drug was due solely to the chloroform so liberated, why was this effect so much more powerful than that of chloroform itself? According to Richardson, two grains of it were equivalent to seven of chloroform, though they would yield but one grain and one-third. The extraordinary decrease of temperature under its action would apparently indicate an arrest of chemical action in the body, for animal heat was now recognized as a purely chemical phenomenon.

DR. PERCY had almost always got vomiting from chloroform when administered after eating; with an empty stomach it was less likely to occur. The powerful action of the chloroform, evolved from the hydrate of chloral in the blood, might be explained by the fact that it produced its effects in the nascent condition, in which it was well known that nearly all chemical agents showed the strongest reactions.

DR. JACOBI, in reply to Drs. Peters and McCready, said that a very weak alkaline solution, no matter of what alkali, was sufficient to produce the evolution of chloroform; and although, as a part of the reaction, the formates of soda and potassa were necessarily formed in the blood, yet these were immediately decomposed and transformed into harmless products.

The PRESIDENT had seen Spencer Wells remove a large mass of glands from beneath the pectoralis major of a patient anæsthetized by bichloride of methylene. Mr. Wells had told him that he used this anæsthetic almost exclusively, preferring it to chloroform, as producing less nausea, though it seemed to him no more rapid in its action. At Edinburgh, the speaker had been asked by Sir James Simpson to try the nitrate of amyl, and he had done so, inhaling two drops of the liquid placed on blotting-paper. The effect was very distressing, the prominent feeling being that of extreme distension of the head. But the most remarkable phenomenon attending its action was the sudden and intense injection of the capillaries. This had been especially well seen when the drug was tried upon a lady-patient with arms and bust fashionably exposed.

The Society adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, OCT. 27, 1869.

DR. L. A. SAYRE, PRESIDENT, in the Chair.

RUPTURE OF RIGHT AURICLE.

DR. FINNELL presented the heart taken from the body of a woman forty years of age. For three or four days previous to her death she was said to have suffered a great deal from pain in her chest. She was suspected to have pleuro-pneumonia, but was not considered to be very ill. On the night of the fourth day, however, she suddenly became comatose, and in that condition died. At the autopsy the pericardium was found filled with blood, and at the point where the vena cava joined the right auricle there was a spot of extravasation which marked the source of the hæmorrhage.

FATTY KIDNEY.

He also exhibited the kidneys taked from a girl aged twenty, whose death was supposed by her friends to be the result of operations for cataract. About three weeks after the last one of two was performed she became rather suddenly comatose and died. The autopsy was made at the instance of the coroner, but no disease was found save in the kidneys, which were the seats of fatty degeneration. One weighed seven, and the other eight ounces. He had understood from one of the gentlemen present that the urine had been examined previous to the operations, but that no evidences of renal disease were discovered.

Dr. Finnell exhibited, lastly, three huge gall-stones, weighing respectively two hundred and forty-eight, two hundred and seventy, and three hundred and twenty-one grains, removed from the body of a female aged seventy, who had died of cardiac disease.

NEUROMA.

Dr. Detmold presented a specimen of painful subcutaneous tumor removed by operation from the sternal region. The patient was a female æt. but fifteen. The growth was supposed to be neuromatous in character, and had an inflamed and infiltrated base. This latter condition, together with the age of the patient and its situation, were the points of interest. It was, on motion, referred to the Committee on Microscopy.

Dr. Whitehead presented a necrosed portion of the alveolar arch of the upper jaw, with the two first molars attached, which he had extracted from a girl six years of age. It was supposed to have been due to inflammatory trouble caused by a blow upon the part, which the patient had received some three or four months before.

Dr. Goodwillie, by invitation, made some remarks upon the specimen.

OVARIAN CYSTS—DROPPING BACK THE PEDICLE.

Dr. Cutter had ovarian cysts removed from both sides of a patient aged seventy years. She first came under his observation about a month before, at which time she was as large as a woman seven months advanced in pregnancy. There was no difficulty in making the diagnosis of ovarian disease, although it was not suspected until the operation that two distinct tumors existed. The mass upon the right side had crowded itself well down into the pelvis, and so firmly deflected the uterus towards the left that it was difficult to determine with the sound whether or not there was any direct connection between the two. The disease had made its whole progress in a period of five months. The rapidity of its growth, the failing health of the patient, and the prospective liability to adhesions, were elements which governed the decision on the propriety of an immediate operation. The risk was fairly presented to her, and she acceded to the necessity.

An incision four inches in extent was made in the median line, and the tumor upon the right side readily removed, after having been evacuated of two quarts of a light-colored fluid. Another growth, the largest of the two, was then observed upon the opposite side, which were found to contain fluid of a darker color. There was some difficulty at first in removing this tumor from its bed; but with one finger in the abdominal cavity, and the other in the vagina, it was at last tilted out. The pedicles were small. There was considerable trouble with intestines, which for a time persistently protruded. Two clamps were at first applied, but it was found to be impossible to bring the wound well together, and so these were removed, and the pedicles were tied in two halves, and sewed in the corner of the wound. The whole was then closed with silver sutures. The patient did very well for three days, when peritonitis set in; in due time she died.

At the autopsy the wound and peritoneal sac were closed, the ligatures were partially loosened, and there was no evidences of commencing inflammatory action in the neighborhood. There was no fluid in the abdominal cavity.

In conclusion, he remarked that the clamp was very useful when the pedicle was quite long, but otherwise it did not do as well as the ligature around the stump, and the whole sewed in one corner of the wound. He had, however, tied the pedicle, and dropped it back into the cavity of the peritoneum, but he was by no means in favor of the practice.

Dr. Whitehead stated that he had recently witnessed an operation for ovariotomy by Dr. Nott, in which Dr. Sims assisted. In that case silver wire was used in securing the pedicle, and the stump dropped back. No unpleasant symptom followed, and the patient got entirely well.

Dr. Cutter replied that in conversation with Dr. Emmet, who was likewise present at that operation, that gentleman had told him of difficulty in controlling the oozing by the wires.

Dr. Whitehead merely remarked that he was also present at the time, and noticed no such condition; all of which evidently showed a slight misapprehension somewhere.

Dr. Peaslee asked why the pedicle was not dropped back at first.

Dr. Cutter belived that silk was apt to irritate when dropped back with the pedicle, as he was confident he lost his first case by that means. He accordingly preferred to secure the pedicle in the wound. When this was done, the stump would in due time retract itself between the integument and peritoneum and be nicely pocketed. Under such circumstances the Fallopian tube would not be left open, neither would there be menstruation through the abdominal walls, as was frequently the case when the clamp was employed.

Dr. Peaslee remarked that it was not uncommon to have menstruation take place in the manner described, but that such a condition of things was not generally of longer continuance than a few months. His experience in regard to dropping back the pedicle was very different from Dr. Cutter's. He had repeatedly applied from six to twelve ligatures in cases of ovariotomy, and returned them into the abdominal cavity without a single bad case. Silk ligatures were incomparably the best; in fact, he did not believe in any other. He always made the ligatures as light as possible, except when he used them for the pedicle, when they were made thick and strong enough to fairly strangulate it. Generally four strands of saddler's silk were sufficient for the latter purpose.

Dr. Markoe was in favor of dropping back the pedicle. He preferred, however, a small ligature, which was buried in the groove previously made by a larger one.

UTERINE MOLE.

Dr. Newman exhibited a globular mass, for which he was indebted to Dr. L. B. Foster, of New Jersey. Dr. F. was called to see the patient, a female, on the 8th of last July, and found that she had miscarried at the end of the fourth month. The fœtus had been expelled three hours before his arrival. In making an examination he found that the uterus was so firmly contracted that he was unable to deliver the placenta, and was forced to rest the case with nature. It seems that the patient did not lose more than an ounce of blood. The attendant did not hear again of the case until three months afterwards, October 3d. He was then sent for, when the lady showed him the mass presented, which, she said, had been discharged. Its shape was exactly that of the cavity of the uterus, and on cutting through, it was found to be made up mostly of white fibrous tissue and vascular stroma. It was supposed to be the placenta, although up to the time of reporting the case no placental tufts had been discovered. The specimen was accordingly referred to the Committee on Microscopy.

Dr. Peaslee thought that it might be a detained and more or less organized clot.

RETROVERSION—DROPSY OF FALLOPIAN TUBES.

Dr. Biddon presented a portion of the pelvic viscera removed from the body of a woman thirty-five years of age. She had been married fifteen years, but had been sterile. The history of the case was very incomplete, as the presentor had not seen the patient during life.

On opening the peritoneal cavity there were evidences of peritonitis of ancient date, in the shape of adhesions of intestines to themselves and to the abdominal walls. The fundus of the bladder was found rising two inches and a half above the body of the pubes. The uterus was retroverted, and held in that position by firm bands of false membrane, which were attached to the anterior surface of the rectum. The ovaries were bound down to the fimbriated extremities of the Fallopian tubes by old adhesions. The open extremities of the tubes had become obliterated by adhesions, and had in consequence developed the condition of dropsy. Dr. B. stated that he had often met with this latter condition in prostitutes. The cervix presented the appearance of endo-cervicitis.

MYRINGOMYCOSIS.

Dr. H. Knapp presented a specimen of myringomycosis with the following remarks:

The specimen I present is of very insignificant external appearance, yet may be worthy of the attention of the members for a few minutes, as it is taken from a disease perhaps for the first time introduced to this society—I mean what is called "*Myringomycosis, or Mycomyringitis aspergillina*," that is, the formation of fungi on the membrana tympani and the adjacent parts of the external auditory canal. The specimen is a white, felt-like plug, removed, by syringing, from the ear canal of a gentleman sixty-two years old, who had never suffered from his ears until, four weeks ago, he experienced hardness of hearing, noises, and some pain in his right ear, which symptoms went on increasing the present time, and were combined two days ago with redness and painful swelling of the walls of the auditory canal. The examination of his ear showed a white, dull, velvety covering completely hiding the membrana tympani and lining the walls of the inner portion of the meatus. The want of any present or previous puriform discharge, and the dryness and velvety appearance, together with the formerly healthy conditions of the ear, and the subjective symptoms, made, at once, the presence of aspergillus probable to me. I filled the meatus with warm water for fifteen minutes, and, by syringing immediately afterwards, brought out the plug which is here before you. It is as large as a white bean, soft, enveloped by a white, dense, membrane-like layer, which forms several projections and folds running through its interior, and incloses spaces filled with a soft, dull, and dark-greenish substance. The latter exhibits under the microscope an abundant collection of the fungus species "*Aspergillus glaucus*" in luxuriant fructification, as you may see in the preparation I placed under the microscope. The membrane-like external layer consists of epithelium densely pervaded by the filaments of the parasites. The speaker illustrated this, and the appearance of the sporangia and seeds, by sketches on the blackboard. He added that in cases like this the introduction of this vegetable parasite must be considered as the *causa morbi*, whilst other fungi, met with in diseased, running, and unclean ears, might just as well be accidental. He thought that the usual astringent lotions, when combined with frequent filling and syringing of the meatus with warm water, would heal the disease as surely and speedily as any of the so-called parasiticide remedies. The prognosis was favorable, since only in exceptional and neglected cases a perforation of the membrana tympani had been noted. On interrogation, Dr. Knapp remarked that the first case of this disease was described, although imperfectly, in 1844; then followed another case in 1857; a third one by *Schwartze*, who determined the species of the parasite; in 1864, and fourteen cases during the last two years by *R. Wreden*, who gave the fullest particulars on this disease. Other vegetable parasites, *graphium jœnicilloides*, *Ascophora elegans*, *Otomyces Flageni*, and two other varieties of *Aspergillus*, viz., *flavescens* and *nigricans*, had been described. The literature on the subject was still very scanty, although he knew by personal intercourse that several aurists had observed the disease, and that at the last meeting of the New York Ophthalmological Society, *Dr. Roosa*, of this city, had related one or two cases of Aspergillus nigricans.

Dr. Weir stated that two cases of that nature had been presented at the last meeting of the American Otological Society. In this connection he remarked that Dr. Draper recently found this parasite upon a spot of eczema marginata of the leg. It was not, however, stated how far the parasite had become developed.

UTERINE MOLE.

Dr. Peaslee presented a so-called uterine mole with a development of three months, which had been discharged at the end of nine months after conception by a young woman who had been married twenty-one months. There was no vestige of fœtus or umbilical cord, and the inference was that it had died at the end of the first month of gestation. She had miscarried at the end of three months after marriage, and at the end of the next three months there was a discharge of blood which only threatened the repetition of the accident, and the uterine contents were carried to full term. He thought that the case had an interesting medico-legal bearing in this, that had the husband died six months before the mole was discharged and the placenta had the growth of only three months, suspicions of her chastity might naturally have arisen. But little practically was known as to the age of a very young fœtus, as the actual time of conception could not always be fixed, and opinions in regard to that point were not always to be relied upon. He was consequently able only to conjecture as to the precise age of the specimen in question.

WHEN THE PLACENTA COMMENCES TO BE DEVELOPED.

Dr. Lewis remarked that he had a perfect specimen of embyro that was one month old. In that case the chorion was fully formed throughout, and the membrane was just beginning to thicken at the future site of the placenta. He had another specimen eight or nine weeks old, in which the placenta was well defined and the umbilical cord well developed for its age.

Dr. Peaslee remarked that the only trouble was in being sure of the age.

Dr. Lewis replied that the parties had been married only that length of time (*laughter*); and that, further, they were respectable parties.

Dr. Post exhibited a specimen of cancer of the orbit involving the right side of the nasal pyramid, which had been removed from a woman thirty years of age. The disease was only of a few weeks' standing.

There being no other specimens, the Society went into executive session.

STATED MEETING, Nov. 10, 1869.

DR. L. A. SAYRE, PRESIDENT, in the Chair.

THE Committee on Microscopy reported the specimen presented by Dr. Newman at the last meeting as purely placental.

ADHESION OF ONE HALF OF MITRAL VALVE.

DR. FINNELL presented a heart, removed from a girl, aged ten years. She had suffered with rheumatism a few years before her death, and during the last months of her life had a good deal of pain and dyspnœa, together with other well-marked symptoms of cardiac difficulty. Finally, anasarca, pleuritic effusion, and pneumonia supervened, and death occurred. She had been repeatedly examined during life by several medical gentlemen, among whom was Dr. Krackowizer, and mitral disease was diagnosticated. At the autopsy there was found marked hypertrophy and dilatation of the left side of the heart, and one half of the mitral valve had become so firmly adherent to the adjacent portion of the ventricle, that it was impossible to separate it.

PENETRATION OF BRAIN BY FRAGMENT OF BONE.

A second specimen was a portion of the parietal bone, three and a quarter inches in length and half an inch in width, removed before death from a boy six years of age, who received a fracture of the skull by the large cover of an iron grating falling on him. He was knocked insensible, was brought home, and having been seen soon after by several medical gentlemen, was declared hopeless. Dr. Finnell saw the patient eight hours after the accident, when he was seemingly in a dying condition, being comatose and having repeated attacks of convulsions. On examining the wound, there was found sticking up perpendicularly through its substance the end of the specimen, the other portion of which penetrated the brain. The fragment was withdrawn with the fingers, and there was a marked amelioration of the symptoms for a considerable time. Death finally resulted, however, on the third day, from a continuance of the coma and repeated attacks of convulsions. These latter were confined to the side of the body opposite the injury.

FATTY HEART.

A third specimen, by the same gentleman, was a heart removed from the body of a corpulent colored woman, forty years of age. She was known to have suffered from heart trouble for many years. On a certain evening, being in her usual health, she went to church, and while shouting and giving way to a fit of excitement, she fainted, and died an hour afterwards. At the autopsy the heart was found so subject to fatty degeneration, that hardly a single muscular fibre could be detected by the naked eye.

A fourth specimen was presented on behalf of a candidate.

LIGATION OF SUBCLAVIAN AND CAROTID ARTERIES.

DR. SANDS exhibited a specimen of aneurism taken from a woman upon whom he had operated over a year ago by ligaturing the right subclavian and carotid arteries. The patient had been exhibited to the Journal Association on the eighth of January last, and all the details of this case were reported in full in the MEDICAL RECORD, vol. iii., page 531. The patient first entered Bellevue Hospital, June 22, 1868, in the service of Dr. Thomas, who diagnosticated the disease as innominate aneurism, and transferred the patient to Dr. Sands. There was then recognized a pulsating tumor at the root of the neck, behind the sterno-clavicular articulation, the bones at that situation having undergone partial absorption. The swelling rose about two inches above the clavicle, and extended from the left of the median line to the clavicular portion of the right sterno-mastoid muscle, the sternal portion of the latter being stretched over its anterior surface. A double murmur could be heard over the præcordial region and the region of the tumor, and it was difficult to decide whether this depended on the aneurismal disease or on coincident disease of the valves of the heart. The diastolic murmur was heard with greatest intensity at the junction of the fourth costal cartilage with the left side of the sternum. All of his colleagues at the hospital agreed that the disease was aneurism of the innominata, but there was some diversity of opinion in regard to its extent. Dr. Van Buren thought it confined to the innominata and root of the right carotid; and the same view of the case was held, he believed, by Dr. Parker. Dr. Flint could find no evidence of aortic aneurism, while Dr. Draper was inclined to suspect the existence of the latter complication, his opinion being founded mainly on a circumscribed spot in the right supra-scapular space which was dull on percussion, and which transmitted very distinctly the aneurismal murmur. An examination of the carotid, subclavian, and radial arteries of the two sides of the body detected no marked difference in the force of their pulsation. The superficial veins in the neighborhood of the tumor, especially on the left side, were moderately enlarged. It was decided to tie the common carotid above the tumor and also the subclavian in its third division, which operation was performed, July 16th. After the operation the progress of the case was in many respects very satisfactory. The radial pulse soon returned on the right side. The ligature of the subclavian came away on the nineteenth, and that of the carotid on the twenty-third day. Without going into further details as to the progress of the case (which are given in the report already published), it was sufficient to say that after some secondary hemorrhages the patient died on the 23d of August, thirteen months after the operation. In consequence of the absence of the curator no record of the autopsy had been made. The specimen itself, however, had been preserved. The disease was found to be not one of aneurism of the innominata, but of the aorta itself. This artery was very thoroughly diseased, patches of atheroma of large size being discovered over its internal surface. The three large vessels coming off from the aortic arch were normal in size. The innominate artery was quite behind the aneurismal sac. The latter was the size of a large pear, was sacculated and augmented from the arch immediately in front of the innominata. As the aneurism grew, it pushed back the latter artery, so that during life it must have been distant from the surface at least four inches. The orifice of the sac measured an inch in one direction, and three-eighths of an inch in another. The cavity was nearly filled with coagulated fibrine. The carotid was occluded from its origin up to the situation of the ligature, and for a short distance beyond it up to the bifurcation of the vessel. The innominata was pervious throughout its entire length. The branches which came off from the first division of the subclavian were pervious.

In conclusion, Dr. Sands remarked that the case possessed a clinical interest in being one of only two operations in which the patients survived the simultaneous ligature of the carotid and subclavian. (For further particulars on this point, see MEDICAL RECORD, vol. iii., page 538.)

DR. J. C. PETERS called attention to some cases re-

ported by Balfour of Edinburgh, wherein the iodide of potassium has been used with great success in aneurisms.

Dr. Sands remarked that in his case the remedy was tried, without, however, any good effect.

PERFORATION OF THE RECTUM BY A BOUGIE.

Dr. Sands presented a second specimen, also of a melancholy interest, from the fact that the intestine was perforated in an attempt to dilate a stricture of the rectum. The patient, a gentleman past the age of forty-five, consulted him two years ago with a stricture of the rectum, from which he had suffered for three years. A year before he came under notice he had been under the care of another surgeon, who, after dividing the sphincter ani, dismissed him cured. Failing to find the relief which he expected, he consulted Dr. Thomas, who recognized the difficulty, and sent the patient to Dr. Sands. The latter gentleman found a very tight and obstinate stricture about three inches from the anal orifice. It was only after two weeks had elapsed that an ordinary olive-pointed urethral bougie could be passed. Larger ones were used after a time, and these gave place to rectal bougies, and finally one was constructed of gutta-percha, ten inches in length, with the curve corresponding to that of the intestine, having an olive point, stiffened by a watch-spring. This was introduced, on an average, twice or three times a week. During his absence from town, Dr. Sands intrusted the case to the care of a medical friend, who, however, was not in the habit of introducing it as he had done—its whole length. On one occasion the patient became aware that it was not inserted as far as he had been accustomed to have it, and informed the attendant of the fact. He became so importunate that the instrument was passed its full length. No difficulty was encountered, and no undue force was used. Immediately after it was withdrawn, and before the patient left the house, he complained of pain in the lower part of his bowels. As this was not an unusual occurrence, no special attention was given to it, and he was simply advised to take a little laudanum. He jumped into a stage and rode down town, but soon began to feel very badly, and was seized with a rigor. He then returned home and immediately sent for the physician. That gentleman saw him the same day, Thursday, and on Friday Dr. Markoe was called in consultation, and it was not until the Saturday evening following—forty-eight hours after the accident—that Dr. Sands visited him. It was then evident that peritonitis existed; the diagnosis of perforation of the rectum was made, and death occurred on the following morning at four o'clock.

On examining the rectum after death, the stricture was found to be five inches in length, and caused by a condensation of the tissues of the gut at that point. As had been previously diagnosticated, no cancerous disease was found. About ten inches from the anus there was found a perforation through healthy tissue, and corresponding in size to that of the point of the instrument. There was an ancient adhesion of the peritoneal surfaces of the sigmoid flexure, in such a way as to render the angle at that point very acute. This inflammation was thought to have been caused at one time when the passage of the instrument by Dr. Sands had been attended with very sharp abdominal pains. After this he had used the instrument with more caution. It was very evident, taking this view of the case, that while the whole length of the instrument could be passed previously without danger, after the adhesion occurred it was very easy to produce the perforation.

(To be continued.)

Correspondence.

CHLORAL.

To the Editor of the Medical Record.

Dear Sir—I see in your last number a mention of Dr. Liebreich's "chloral hydrate." It is attracting considerable attention here. Last week I had an opportunity of seeing it used for the first time in a case of eclampsia, very satisfactorily to the attendant physician. Although perhaps less dangerous than chloroform, it is much slower in producing the desired result. It was in this case given internally; but being soon vomited, it was subsequently hypodermically injected. A second case of eclampsia, treated in the same way, three days since, also recovered; in each of these patients, after a few days, herpes labialis appeared.

Prof. Virchow commenced his classes yesterday, and Von Gräfe will resume his duties November 8th.

I am yours truly,

J. H. Raymond.

Berlin, Nov. 2, 1869.

Medical Items and News.

Professional Quackery—A Good Example.—We have received the following communication from the Hennepin Co. Medical Society, Minn., and take occasion to commend its action to other organizations:—

Dr. Geo. F. Shrady:

My Dear Sir—I send you a copy of a preamble and resolutions adopted by this Society at its last stated meeting, holden November 6th. It may interest you as being the direct result of your editorial of a month since, entitled "Professional Quackery."

Very truly yours,

W. F. Hutchinson, M.D.,
Secretary.

Minneapolis, Minn., Nov. 9, 1869.

Whereas, action of this body has been deemed necessary in order to prevent professional quackery in the matter of advertising surgical operations and in the daily journals:

Resolved, that any member of this Society who shall permit his name to appear in connection with a report of a surgical operation or case of disease in the public prints, or who shall furnish any secular journal with such report for publication, shall be deemed guilty of gross violation of the Medical Code of Ethics and of professional honor.

Resolved, that it shall be the duty of the Committee on Ethics to investigate each case as it appears in print and report the result to the Society at its next regular meeting; and the offender, if found guilty, shall be reprimanded by the President for the first offence, and summarily expelled for the second.

Resolved, that the Secretary be instructed to transmit a copy of this preamble and these resolutions to each member of the Society, to each newspaper published in the city, to the Secretary of the State Medical Society, and to the Editor of the "New York Medical Record."

Preservation of the Cadaver.—According to M. Devergie, of the Paris School of Practical Anatomy, a mixture of three parts of glycerine and one of carbolic acid injected into dead bodies, will prevent any unpleasant odor emanating from them for several months

THE NEW PRESIDENT OF THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.—Mr. Huxley has been elected President of this scientific body for the ensuing year.

NURSERY AND CHILD'S HOSPITAL.—There will be held hereafter public clinics at this institution every Saturday, at 2.30 P.M.

THE NUMBER OF INSANE IN VIRGINIA.—According to the late report of the Census Bureau, Virginia had 1,179 insane persons. The Insane hospitals of that state are situated at Williamsburg and Staunton.

A NEW WORK BY DARWIN.—It is stated in London that Mr. Darwin is preparing a new work, in which the main conclusions arrived at in his Origin of Species, and accepted by most of the younger naturalists throughout Europe, will be applied to man. The work, to be published next year, will consist of three parts: I. The Descent of Man; II. On Sexual Relation; and III. On Expression of the Emotions.

AN IMMENSE FLYING DRAGON.—The British Museum has lately received the fossil remains of a flying dragon, measuring upwards of four feet from tip to tip of the expanded wings. The bones of the head, wings, legs, tail, and great part of the trunk with the ribs, are imbedded in dark lias shale from Lyme Regis, on the Dorsetshire coast.

THREATENED DANGER FROM BICHLORIDE OF METHYLENE.—We learn from the *British Medical Journal*, that two cases have occurred at the Moorfields Ophthalmic Hospital, in which the inhalation of bichloride of methylene caused dangerous symptoms. In each case the patient was a young child, and perhaps this anæsthetic may be less safe in very young subjects than in adults.

DEATHS FOLLOWING AMPUTATIONS IN HOSPITALS.—Sir James Simpson believes that great hospitals should be abolished altogether, and cites the following statistics: In isolated rooms in country practice the loss of life after amputations is 11 per cent.; in hospitals with 26 to 100 beds it is 18 per cent.; from 200 to 300 beds, 30 per cent.; from 300 to 600 beds, 41 per cent.; in the large Paris hospitals, 62 per cent. Mr. Lister holds that all this surplus of mortality may be prevented by antiseptic treatment and thorough ventilation.

THE FLORIDIAN GUIDE.—Dr. D. G. Brinton, Phila., has published a neat little guide-book of Florida and the South, which invalids, tourists, and all others who intend to visit southern climes, should consult.

A MANUFACTURER OF "SWEET QUININE" EXPELLED FROM THE AMERICAN PHARMACEUTICAL ASSOCIATION.—At the last meeting of this Association Dr. Squibb offered a resolution for the expulsion of Mr. Fred. Stearns of Detroit, for the sale and advertisement of an article, which he calls "sweet quinine," which contains no *quinine* and is therefore a fraudulent imposture. The resolution was passed by a vote of 63 ayes to 22 nays.

MALIC ACID FROM THE EUROPEAN ASH.—Prof. Wilhelm Gintl, of the University of Prague (*The Pharmacist*), at a late meeting of the Vienna Academy of Sciences, presented the results of a *continuation* of his interesting researches on the proximate constituents of the *leaves* of the European Ash. He has extracted a notable quantity of *malic acid* from these leaves; 35 pounds of dried leaves yielded about half an ounce of perfectly pure malic acid.

THE PRODUCTION OF NITROGENOUS MATTER.—In order to obtain the 315 grammes of nitrogenous matter which man requires daily, it would be necessary, according to Payen, to consume 16 dozen oysters, if they should form the sole nutriment.—*Journ. de Pharm. et Chem.*

CHLORESTERINE FROM SECALE CORNUTUM.—Dr. H. Ludwig, of Jena, has extracted 0,250 gr. cholesterine from 3000 gr. of the fresh seeds of Secale cornutum.

PROPERTIES OF ARGEMONE MEXICANA.—From the *Journ. de Pharm. et Chem.* we learn that Argemone Mexicana, the only papaveracea growing wild in Mexico, upon the Antilles, and in some parts of North America, furnishes a milky juice from which a substance, reacting like morphia, has been separated. The seed and fatty oil of the same are purgative and emetic.

THE LEADING SURGEON OF THE HOTEL DIEU.—A Paris correspondent of the *Medical and Surgical Reporter* states, that Maisoneuve is the leading man of the older surgeons, who still lectures and walks the hospital wards. He uses his favorite caustic arrows, which are made of wheat flour and chloride of zinc. Incisions are made into the part to be acted upon, and then the arrows are thrust in.

CIVIL HOSPITALS IN PARIS.—More than forty millions of francs have been expended within thirty years, upon the several civil hospitals in Paris, which contain 19,600 beds. The places of amusement pay a tax of eight per cent. on receipts for support of hospitals, and a heavy tax is also levied on every piece of ground purchased in the cemeteries.

MANIA-A-POTU NOT SEEN AMONG THE INDIANS.—Adolfo Autry, M.D., of Mexico, writes to the *Medical and Surgical Reporter* that he has never seen a case of delirium tremens in the Indian race, in twelve years' practice of medicine in Mexico, where three-fourths of the entire inhabitants are Indians. These Indians drink to excess, and use the very worst of liquors.

NEW YORK OPHTHALMIC AND AURAL INSTITUTE.—Professor H. Knapp, M.D., late of the University of Heidelberg, Germany, has opened an establishment with the above title at No. 46 East 12th street, near Broadway and Union Square "For the Treatment of Diseases of the Eye and Ear," upon a plan adopted by similar institutions in Europe, as for example that of Professor Graeffe in Berlin.

Besides a parlor, dining-room, piazza, and large yard for the use of resident patients in common, there are numerous well-furnished bedrooms, capable of accommodating at least thirty persons.

An *Out-Door Department* for the gratuitous relief of indigent patients, also constitutes an important branch of the Institution.

The following medical gentlemen are Trustees of the Institute: Alfred C. Post, M.D., Prof. N.Y. University Medical College; Henry B. Sands, M.D., Prof. College of Physicians and Surgeons of N.Y.; Gurdon Buck, M.D., Surgeon to N.Y. Hospital; John T. Metcalfe, M.D., Professor College Physicians and Surgeons; J. Kammerer, M.D., Physician to the German Hospital and Dispensary; Jared Lindsley, M.D. The subjoined names represent the merchants and bankers connected with the Institution as Trustees: Gustav Schwab, Frederick S. Winston, R. McCarter, Eugene S. Ballin, Cyrus H. Loutrell, A. D. F. Randolph, Wm. T. Blodgett, Rollin Sanford, Simon Rindskopf, and Genl. James Power, Prest. Board of Public Charities and Corrections.

OVARIOTOMY TWICE PERFORMED UPON THE SAME PATIENT.—M. Boinet has recently had the good fortune of

twice performing ovariotomy upon the same patient, with the very best results.

MARSHAL NIEL'S DISEASE.—The post-mortem examination of Marshal Niel has revealed the existence of four large calculi in the bladder. M. Nélaton had diagnosed the presence of many calculi during life. Two of these had been crushed by the lithotrite, but the weakness of the patient forbade the continuance of the operation.

DR. FOSTER SWIFT has been appointed by the U. S. Marshal of this district, visiting physician to prisoners held for violation of the revenue laws.

JOURNALS OF DERMATOLOGY.—*Four* Journals of Dermatology, representing the United Kingdom and all Europe, have come to hand, viz: Italian, German, French, and English. The editors of these interesting journals are, Wilson, Soresina, Auspitz, Pick, and Doyon.

America will soon produce a dermatological journal, which, it is to be hoped, will equal the four foreign ones. Dermatology should not fail to occupy the position which as an all-important branch of medicine it is entitled to hold.

A NEW APPOINTMENT IN THE EDINBURGH UNIVERSITY.—The chair of Clinical Surgery in the Edinburgh University, vacated by Mr. Syme, has been given to Mr. Lister, of carbolic acid fame.

DEATH FROM TWENTY DROPS OF CHLOROFORM.—Dr. J. A. Ross reports in the *Lancet* a case of death in the Staffordshire Infirmary from the administration of twenty drops of chloroform. The patient was a miner, fifty years of age, upon whom an operation was to be performed. The chloroform was pure, and was given by means of a cone of lint. The pulse stopped suddenly, and the most persevering use of all appliances for restoring animation proved unavailing. The autopsy showed the heart to be rather large and flabby, but otherwise free from disease. The other organs were normal.

THE NEW HYPNOTIC.—The statements of M. Liebreich as to the anæsthetic agency of chloral have been subjected to investigation by M. Demarquay, and the results have been far from confirming them. On only a few points are the two observers in accord, and notably on the rapidity and power of chloral as a hypnotic, and as an agent for obtaining muscular relaxation and also the prompt and complete recovery of animals, however far the action of the chloral might have been pushed. M. Demarquay sums up his conclusions as follows:

1. Chloral has a well marked hypnotic action, especially on weakened and feeble persons.
2. The duration of its action is in direct proportion to this weakness.
3. The sleep which it produces is generally calm, and is not agitated even in patients who are the subjects of severe pain. This result leads M. Demarquay to advise its use in diseases where sleep and muscular relaxation are required.
4. The agent may be given in high doses, since no accident has been known to result even from 1 to 5 gramme doses.

COFFEE.—Brazil is the greatest producer of coffee. That known in the trade as Rio is a Brazilian product. Of the 713,000,000 pounds produced by the world per annum, Brazil furnishes 400,000,000, or more than half of the whole; Java 140,000,000, Ceylon 40,000,000, St. Domingo 40,000,000, Cuba and Porto Rico 25,000,000, Venezuela 25,000,000, Sumatra 25,000,000, all others, including the Mocha, 18,000,000. The United States is the greatest consumer. We use in the United States nearly one-third of all the coffee consumed in the world, using nearly seven times as much as Great Britain, with a population not very far from the same. Germany comes next.

PHYSICIANS' MUTUAL AID ASSOCIATION—ELECTION OF OFFICERS.—The annual meeting of this Society was held on Saturday, Nov. 6th, at the Mott Memorial rooms, Madison avenue, when the following officers were elected:—James Anderson, *President;* Alexander B. Mott, *Vice-President;* Joseph Monell, *Secretary;* Charles H. Osborne, *Assistant Secretary;* Leonard Weber, *Corresponding Secretary;* E. L. Jones, *Treasurer.* The following members of the Board of Trustees were re-elected for the term of three years:—M. Herzog, R. J. O'Sullivan, and Gurdon Buck.

GIANTS.—Pliny relates that, in the time of Claudius Cæsar, there was a man, named Gabburus, brought by that emperor from Arabia to Rome, who was 9 feet 4 inches high, "the tallest man that has been seen in our times."

In the reign of Augustus Cæsar, the tall forms of Rosis and Secundilla might have been seen, whose bodies were preserved in a museum in the Sallustian Gardens, and each of whom measured 10 feet 3 inches in length.

The Emperor Maximus was 9 feet high, and was in the habit of using his wife's bracelet as a thumb-ring. His shoe was a foot longer than that of any other man, and he could draw a carriage which two oxen could not move. He ate usually 40 pounds weight of flesh, and drank six gallons of wine every day.

Josephus tells of Eleazer, a Jew, a giant over 10 feet high, who was one of the hostages whom the King of Persia sent to Rome after a peace.

Plot, in his "Oxfordshire," 1676, says, that a skeleton, 17 feet high, was then to be seen in the town-hall in Lucerne. It had been found under an oak in Willison, near the village of Reyden.

SEWERS A SECRET CAUSE OF DISEASE.—Samuel P Duffield, Ph.D., M.D., Professor of Chemistry, Detroit Medical College, in a scientific article in the *Detroit Review of Medicine and Surgery*, proves that the filthy sewers of our cities, as now constructed, cause disease. More water should flow through them, and the air be prevented from passing up from the sewers at night.

AMERICAN MEDICAL ASSOCIATION.—We are requested to give notice that those who have paid for the last (20th) volume of the Transactions of the American Medical Association, can obtain it by calling on or sending to Dr. H. D. Bulkley, No. 42 East Twenty-second street.

ILLEGITIMATE BIRTHS.—The proportion of illegitimate births to the total number of births is, in Ireland, 3.8 per cent. The proportion in England is 6.4 per cent; in Scotland, 9.9.

New Publications.

BOOKS RECEIVED.

HAND-BOOK OF THE DISEASES OF THE EYE, their Pathology and Treatment. By A. SALOMONS, M.D. Boston: James Campbell. 1870.

A PRACTICAL TREATISE ON THE DISEASES OF CHILDREN. By ALFRED VOGEL, M.D., Prof. of Clinical Medicine in the University of Dorpat, Russia. Translated and edited by H. RAPHAEL, M.D., late House Surgeon to Bellevue Hospital, etc. From fourth German edition. New York: D. Appleton & Co. 1870.

Original Communications.

REPORT OF A CASE OF LABOR OBSTRUCTED BY A FIBROUS TUMOR,

ENTIRELY FILLING THE PELVIC CAVITY.

(Presented to the N. Y. Obstetrical Society.)

By JAMES L. BROWN, M.D.

On the 12th of May, 1868, Mrs. R., aged 29 years, presented herself at the Demilt Dispensary for advice and treatment on account of certain peculiar and distressing symptoms from which she had been suffering during the preceding ten months. She stated that she had been married twelve months; that she became pregnant about two months after her marriage, and that she had aborted in the tenth week of her pregnancy, during an attack of cholera morbus. After recovering from this attack, her health continued to be good until four months before consulting me, when her menses became suppressed, and she supposed herself to be again pregnant. About a month after this suppression she began to have some gastric disturbance, which she regarded as due to her condition, and her breasts began to enlarge and to be tender to the touch, and were affected with occasional shooting pains. At the expiration of another month she noticed some enlargement of the abdomen, which was not exactly in the median line, but somewhat to the right of it; and about the same time she began to suffer from severe pains in the back and hips, which affected her chiefly at night, and so greatly interfered with her sleep that she had not enjoyed a good night's rest during the past two months. She suffered, too, from distressing attacks of vesical tenesmus, which would persist for three or four days, and then disappear for a like period. The abdomen had gone on enlarging up to the present time, the enlargement continuing to be greater on the right side. This peculiarity in her shape, together with the unusual symptoms from which she was suffering, early led her to suspect that there was something wrong in her case, and six weeks before coming under my observation she had sought the opinion of another physician, who expressed grave doubts as to the nature of the enlargement. A few weeks later she consulted my colleague at the dispensary, Dr. Chamberlain, who at once recognized the existence of a tumor, the nature of which was not obvious, but which was evidently something more than a pregnant uterus.

On proceeding to examine the patient, I found her general condition to be good, except that she complained of great debility, and had a marked pallor of countenance.

By abdominal palpation a tumor was felt in the hypogastric region, about as large as the uterus in the fifth or sixth month of pregnancy, and extending more to the right of the median line than to the left of it. This tumor was firm and hard, and felt not unlike a pregnant uterus, except that it was unsymmetrical, being larger on the right side. On examining per vaginam, this canal was found almost occluded by a solid tumor of firm consistence, pressing down behind its posterior wall quite to the perineum, and apparently continuous above with the tumor in the hypogastrium.

Upon forcing the finger up, the os uteri could just be reached behind the symphysis pubis, against which it was so firmly pressed by the tumor as to be quite flattened. The nature of the case being involved in some obscurity, and there being several points of interest connected with it, I got the patient to present herself on the evening of the same day at the house of Dr. Peaslee, where a meeting of the Obstetrical Society was to be held: and just before the meeting, she was examined by Drs. Peaslee, Emmet, Thomas, and others, without, however, any satisfactory diagnosis being made. The existence of pregnancy was *not* made out, and the tumor was by some supposed to be a fibrous tumor of the uterus, and by others, on account of its rapid growth and the severe pain attending it, to be malignant disease of the ovary. It is only proper to state that these examinations were by no means exhaustive, and, in fact, were, on the part of some of the gentlemen, made quite hurriedly.

I did not see the patient again until the 8th of June, about four weeks afterwards, when I called at her house, and found the aspect of the case so changed as to leave no further room for doubt as to its true nature. The pain in the back and hips, and the irritability of the bladder, had entirely disappeared. Her general condition was much improved, and she felt convinced that she was pregnant, having felt fœtal movements.

On examination, the abdomen was found to have increased in size, and there was a distinct protuberance in the right lumbar region, which appeared to be an outgrowth from the uterus.

On palpation, fœtal movements could be readily felt, and on auscultation, the placental souffle was distinctly heard. Fœtal heart-sounds were not detected. The occlusion of the vagina seemed more nearly complete than before, and the os uteri was barely within reach.

It was now obvious that the case was one of pregnancy, complicated with a fibroid tumor which had grown downwards and was occupying the whole of the pelvic canal. The question of diagnosis being thus settled, that of *prognosis* at once demanded attention.

The woman had completed her fifth month of pregnancy, and the tumor had so grown with the development of the uterus as to completely obstruct the pelvic outlet. If the pregnancy should go on without interruption to full term, and the tumor should continue to grow, or should even remain stationary in size, delivery through the pelvis would be impossible, for the greatest amount of space that could be made by firm compression between the tumor and the symphysis pubis was less than an inch. The induction of premature labor appeared equally impracticable for the same reason. Under these circumstances, I sought the advice of Dr. Thomas, who carefully examined the patient, and came to the conclusion that any attempt to induce premature labor at that time would be more hazardous than to allow gestation to go on and deliver by Cæsarean section at full term, which seemed to be the only alternative. Nearly two months later, toward the end of the seventh month of pregnancy, Dr. Peaslee was kind enough to visit the patient with me, and he, also, regarded the case as one in which delivery by any other mode than Cæsarean section would be impossible. The woman went her full time, and labor set in about ten o'clock on the evening of the 10th of October. I went to the case at once, and on examination I found I could just reach the os uteri, there being barely space enough between the tumor and the pubes to allow the passage of the finger.

I was unable to make out the presentation, and feeling confident that the delivery could only be effected by Cæsarean section, I determined to wait until morning before interfering. This delay would afford time for such dilatation of the cervix as would insure a free escape of the lochial discharges, and would enable me

the more easily to procure such counsel and assistance as would be necessary, besides giving me the advantage of daylight for whatever operative procedures might be required.

The patient was accordingly left in charge of an advanced student who had already had some considerable experience in midwifery, and I did not see her again until seven o'clock next morning. During the interval, some important changes had taken place. The os had dilated, the membranes had ruptured, and prolapse of the cord had occurred.

The gentleman in attendance had endeavored by postural and other treatment to return the funis, but without avail.

The uterus was contracting well, the pains recurring about as often as every four or five minutes. On examining the patient, the first thing that attracted my attention was *a change in the consistence of the tumor.* Heretofore this had always been as hard as cartilage; now it felt somewhat spongy, and would yield a little on pressure. It also appeared to have slightly receded, and did not extend quite down to the perineum. The funis was in the vagina, and had already ceased to pulsate.

The os was high up, and I was still unable to touch the presenting part. The pelvic canal, however, was yet almost entirely filled by the tumor; and the only important change in the aspect of the case, apart from the death of the fœtus, was in the altered consistence of the tumor, and the tendency which it had shown to recede. Having sent for Drs. Thomas, Peaslee, and Jacobi, who had kindly promised me their assistance, I did nothing further until their arrival between nine and ten o'clock.

Meanwhile, the change in the consistence of the tumor and its tendency to recede became still more marked, and so compressible had the mass become by half-past nine, that in the opinion of Drs. Thomas and Jacobi (Dr. Peaslee not having arrived yet), space enough might now be obtained to justify the attempt at embryotomy, and a messenger was at once dispatched to procure the necessary instruments. It had already been ascertained that the feet were presenting, and the child was known to be dead.

During the absence of the messenger the patient was fully anæsthetized, and while in this condition Dr. Thomas proceeded to examine her again more thoroughly.

There being now no resistance on the part of the woman, and the muscles being thoroughly relaxed, he was able to force his whole hand into the vagina, and by steady pressure to so push up and compress the tumor as to be able to grasp the feet and bring them through the vulva. The tumor had now become so soft, and had so far receded with the increasing dilatation of the cervix, as to warrant the attempt to extract the child without mutilation, and at my request Dr. Thomas endeavored to effect the delivery, and after fifteen or twenty minutes' strenuous effort was entirely successful, the tumor appearing to pass upward to the abdominal cavity as the fœtus descended. The delivery was effected without a single untoward circumstance except a laceration of the perineum, through which sutures of silver wire were at once passed by Dr. C. S. Ward, who shared with me the care of the case both before and after parturition, and in three or four days the rupture was entirely healed. On searching for the tumor after delivery, nothing could be found except a thickening of the whole posterior wall of the uterus, no well defined protuberance being anywhere apparent. The uterus contracted readily and firmly, and there was no unusual loss of blood. The woman made a good recovery, and at the expiration of ten or twelve days I discontinued my attendance, designing, however, to see her again as soon as involution should be complete, with a view to ascertain, if possible, the location and condition of the tumor. Circumstances, however, prevented my seeing her until about three months from this time, when I called at her house and was surprised to find that pregnancy had again occurred and was already advanced as far as the sixth week. Anticipating a recurrence of the same phenomena that had characterized her former pregnancy, I examined her carefully, but found no tumor whatever in the pelvis and no evidence of a tumor above, except an apparent thickening of the uterine wall posteriorly and to the left. Gestation went on in a perfectly regular manner to full term, the pelvis remaining free and no well-defined tumor being recognizable above; and on the 15th of August last, the woman was delivered of a healthy male child after a labor which was perfectly normal in every respect. About seven weeks after her confinement, although she was nursing her child, her menses returned, the duration and amount of the flow being about the same as had been usual with her. Two weeks later I examined the womb and found it much enlarged, appearing, as felt through the abdominal walls, to be of the size of a fœtal head. On passing the sound, it entered four and a half inches, the direction being forwards and to the left. The tumor appears to be situated in the posterior and left lateral walls.

The woman is now in excellent health, and entirely unconscious of anything abnormal in her condition.

The points that are chiefly interesting in this case seem to me to be the following:

1st. The difficulty attending an early diagnosis. This is not readily appreciable on merely reading a history of the case, but the fact that the woman was examined in the fourth month of pregnancy by several experts without this condition being recognized, is a sufficient evidence that much obscurity rested on the case at that time.

2d. The ease and rapidity with which delivery was effected, without injury to the mother or mutilation of the child, in a case where, so far as human foresight could discern, Cæsarean section was the only resource. In searching for analogous cases, I have found reports of fifteen, in which labor was obstructed by the presence of a fibroid in the pelvic canal. The literature of this subject is in a very scattered condition, and there are doubtless many other cases recorded that I have not had an opportunity of seeing.* In nine of these cases Cæsarean section was resorted to, the mother and child perishing in every instance. In three other cases the women died undelivered, no operation being attempted. In two others the delivery was spontaneous, but the labor was premature, gestation not having advanced beyond the seventh month in either case, and the children having been dead some time before delivery. In the remaining case, the tumor, which sprang from the posterior lip of the os uteri and did not involve the body or the upper part of the neck, was successfully removed by enucleation, and the woman delivered of a dead fœtus. These cases serve to show not only the exceeding peril of this peculiar complication of labor, but also the entirely

* Reports of some of the above cases and references to the others may be found in the following works:—

1. Des Tumeurs Fibreuses de l'Uterus, par Dr. Felix Guyon. Paris: 1860.
2. Des Cas dans lesquels l'Extraction du Fœtus est Necessaire, etc. Par Dr. S. Tarnier.
3. Churchill's Midwifery.
4. London Lancet, 1869, Sept. (Am. Ed. p. 492.) Case by Dr. Hicks.
5. Gynæcological Journal. Boston: Oct. 1869. A very remarkable case, by Dr. Storer.

exceptional character of the result attained in the case I have been narrating.

3d. A third point of interest is the change produced in the consistence, position, and shape of the tumor by the dilatation of the cervix and os uteri. This would seem to indicate that the growth sprang from some part of the cervix; but this inference is not sustained by the subsequent history of the case and the present position of the tumor.

4th. The entirely different behavior of the tumor in the subsequent pregnancy, and the absence of any complication whatever during gestation and parturition. Since it is well known that fibrous tumors may be entirely absorbed during the process of involution, it was suspected that such might have been the case in this instance, but the recent examination of the uterus already referred to shows that the tumor still exists, and is of considerable size. In conclusion, I would only remark that, perhaps, the most important practical lesson to be deduced from this case, is the importance of waiting until it is established beyond reasonable doubt that delivery cannot otherwise be effected, before resorting to Cæsarean section, since statistics show that in cases of this kind that operation is almost, if not quite, uniformly fatal.

THE GLYCERINE OF TANNIN.

By MEREDITH CLYMER, M.D.

An incorrect formula for the glycerine of tannin is given in the Medical Record, November 1, p. 396. It is officinal in the British Pharmacopœia of 1867, and the directions for its preparation are:—"Take of tannic acid, one ounce; of glycerine, four fluid ounces. Rub them together in a mortar, then transfer the mixture to a porcelain dish, and apply a gentle heat, until ample solution is effected."

Dr. Sydney Ringer first published his remarks on the employment of this preparation in "*The Practitioner*," July, 1868. He says:—"It appears to be but little known, and consequently but little used, while, in my opinion, it proves of great service in many diseases"; and he mentions ozœna; the reddish, sanious or purulent discharging excoriations in the inside of the nose after scarlet fever or measles, with the consequent eczema of the upper lip; the thick, lumpy, greenish-black, often offensive, discharges from the nose, generally chronic and intractable; the thin sanious, or purulent, discharges from the ears, in weak, unhealthy children, particularly during convalescence from long illness; the early stages of eczema, when the skin is red, tumid, and weeping; the eczema which is limited to behind the ears of children; inflammations of the throat, after the acute symptoms have subsided, and particularly in those cases where there is general relaxation of the uvula and pharynx. In his Handbook of Therapeutics, just published, Dr. Ringer adds to the list of affections in which this combination does good.

Having used glycerine of tannin since the appearance of Dr. Ringer's paper, in most of the disorders just mentioned, I can bear witness to its efficiency. I have also found, that in chafing (intertrigo), both in adults and children, it gives prompter relief than any other means. It will remove almost immediately the annoying itching of pruritus ani. Stuffing of the nose in syphilitic children, so characteristic and troublesome, and hindering sucking, is for a while relieved by it. In vaginal leucorrhœa it is of much and immediate service. The canal should be loosely packed with wads of cotton-wool, thoroughly moistened with it. Excoriations of the os tincæ, particularly where there is a boggy os, with a greenish-yellow, or sometimes sanious, discharge, may be dressed with glycerine of tannin. After cleansing the parts, a cotton wad well saturated with the preparation is to be placed completely round the os and vaginal cervix, and another wad, moistened with glycerine, over this; the dressing to be changed every twenty-four hours. In chronic gonorrhœa and gleet, injections of glycerine of tannin, diluted from one-half to two-thirds, will often prove quickly curative; it should remain in the urethra for five minutes.

Dr. Ringer writes: "In phthisis a frequent hacking cough is often dependent on the state of the throat, and can be allayed by this application. A good night's rest may be obtained by applying the paint just before going to sleep. A small quantity of morphia added to the glycerine of tannin still further increases its soothing, sedative power on the throat. The paroxysms of simple, uncomplicated whooping-cough may be most considerably lessened in frequency and violence by well sponging out the pharynx; it should be carried low down, and be brought well in contact with the epiglottis and the neighboring parts. . . . May be painted in the mucous membrane of the mouth in ulcerative stomatitis." (A Handbook of Therapeutics, p. 221.) In throat affections, I have not found it so efficient as other astringents, and by no means agreeable to the patient, though Dr. R. says, "It has the further advantage of not possessing a bad taste."

New York, December 1, 1869.

INTERESTING CASE OF HÆMORRHAGE CAUSED BY NECROSIS OF LOWER HALF OF FEMUR—AMPUTATION.

By J. H. POOLEY, M.D.,

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On the 2d of August, 1869, I was called to attend Mr. W—— for what was supposed to be a severe attack of inflammation of the left knee. He was a man about forty-six years of age, of medium height, stout frame, and dark saturnine complexion. He had always been strictly temperate in his mode of life, and had never been subjected to syphilitic influences.

At the time of my first visit I could not obtain a complete history of his case, but from statements made then and subsequently the following facts were gathered.

At the age of seventeen, he had a severe and protracted attack of inflammation in this leg, produced, as he supposed, by exposure to cold and wet. An abscess formed just above the knee and was opened; another incision was made below the knee, but no matter came from it.

He recovered so as to get about, but the leg remained weak and slightly painful, and some time after a small irregular piece of bone was discharged from the opening above the knee, which then healed up. After this time, though the limb remained somewhat weaker than the other, it gave him no particular uneasiness, and he walked a great deal and worked very hard.

Twenty years afterwards, and now some eighteen years ago, he had a severe attack of inflammation in the same knee, which laid him up for nine months. It was called water in the joint, and among other means used, a great many blisters were applied; no opening was made at this time, nor did any form spontaneously. He again got about, and was actively engaged in business; but, although he was loth to admit it, the limb was still further weakened and never became as strong

as the other. When at all tired he would limp perceptibly; and often on coming home at night the limb would pain him very much, and he was obliged to wrap it up in cold water bandages. I have also been informed by one of his intimate friends that the old opening discharged slightly at intervals.

When I took charge of the patient, he had been laid up about a week with pain and swelling in the knee. I found the joint considerably enlarged, the synovial sac being distended with fluid; but the enlargement depended also in part on increase of the articular end of the femur, which bone could be felt enlarged for some distance above the joint, and was painful on deep pressure. The surface was hot and slightly reddened; the limb, as he lay in bed, was resting upon its outer side, and slightly flexed. There was not much constitutional disturbance; the pulse about a hundred, the tongue moderately coated with a white fur, temperature not observed.

The knee was at first wrapped up in cloths wrung out of hot water, which relieved the pain for a time. Subsequently an ice-bag was substituted, and leeches applied several times. At the expiration of two or three weeks the pain had subsided (it had never been very severe), and the knee had lost its redness, and to a great extent its swelling. But deep mischief had been going on; and very soon an obscure boggy swelling made its appearance on the outer aspect of the femur just above the joint, which was opened, and pus flowed out in large quantity; and upon passing a probe into the opening, it at once came in contact with dead bone. The opening was dependent, being quite underneath in the position in which the limb ordinarily lay, and continued to discharge very freely. About two weeks after the first opening was made, a swelling similar to the first appeared almost exactly opposite to it, on the inner side of the limb; this was also opened, and yielded pus, and led to dead bone, and soon after the scar of the old opening from which bone had been discharged years before reopened of itself.

While these openings were discharging the limb was bandaged, and the patient's strength supported with quinine and iron, good food, and alcoholic stimulants. He was repeatedly advised and urged to have an operation performed by which the opening might be enlarged, and the condition of the bone accurately examined, but he absolutely refused.

A consultation was proposed, but though he seemed to favor it at first, it was afterwards declined. His general condition at this time was good; his pulse was never over a hundred, his tongue clean, his appetite first-rate, his bowels regular; he had no chill nor febrile action, and no starting of the limb, but he had emaciated considerably. The inflammatory swelling having in a measure subsided, the enlargement of the femur could be more distinctly felt, and it was noticed that its surface presented perceptible irregularities; it was supposed that this was an involucrum inclosing a large sequestrum, which sooner or later must be removed.

Such was the condition of things, when at 3 o'clock on Sunday morning, September 19th, I was called to the patient in great haste, and on reaching him found that he had had a very severe hæmorrhage, which came on upon his making some movement in bed, and was so profuse as to cause syncope in a few moments. Upon removing his bandages the blood was seen to have issued from the external, or dependent opening. The whole bed was covered with blood, which had even soaked through the mattress; it was estimated by others who saw it, at about two quarts.

He was pale, and very much alarmed; his pulse feeble and fluttering. A tourniquet was applied over the femoral, and believing that the only possible source for such a bleeding was the popliteal artery, and probably the only remedy amputation, I left a medical friend in charge, and went to the neighboring city of New York for surgical advice and assistance.

Dr. Geo. A. Peters came up at 2 P.M., and after examining the case, expressed the opinion that the sequestrum which was supposed to exist, might be removed, the artery secured, and the limb preserved. Accordingly the patient was put under the influence of ether, and I proceeded to lay the most convenient of the two sinuses freely open, down to the bone.

Opportunity being thus afforded, the finger was passed in, and encountered a number of loose spicula of bone, one in particular quite large, lying diagonally across the popliteal space, as sharp as a knife, and revealed such a condition of disease as to render it perfectly evident that amputation was the only resource.

Dr. Peters, therefore, amputated in the middle of the thigh. The operation was a speedy and almost a bloodless one, but the patient never rallied satisfactorily, and died four hours after, of shock and exhaustion.

Upon examining the limb, it was found that the soft parts were in a very disorganized condition, the muscular tissue being pale and soft from long soakage in pus; and one or two sinuses extending up along the muscular interspaces were found, the existence of which had been surmised during life, and to limit which bandaging had been resorted to.

The shaft of the femur was irregularly enlarged, up to the point where the saw had been applied, and for a slight distance above it. The exterior of the femur presented a worm-eaten appearance, the little depressions giving rise to which, did not extend through the compact tissue, but only into its substance.

This appearance was most marked in the inter-condyloid or popliteal space, and there had gone so far as to diminish very sensibly the calibre of the bone by subtraction from its surface. The point of section where the bone had been sawn off, looked unnaturally white and firm. The little depressions, or lacunæ, upon the worm-eaten surface were filled with purulent matter. The disease extended to the joint, the articular cartilage of the femur and tibia, and the surface of the head of the fibula, with the inner face of the patella being eroded, the morbid appearances not extending any further in these latter bones. Upon making a longitudinal section of the femur, the diseased appearances were found to involve the entire thickness of the bone. There was distinct death of the cancellated portion, and all the cancelli were filled up with pus; the medullary canal was filled with a greenish purulent marrow, and its inner bony surface roughened, and irregular in form.

The popliteal space contained a number of loose pieces of bone, varying from mere crumbs to one fragment of considerable size. A gum elastic catheter, large enough to fill it, was passed into the popliteal artery, and the vessel carefully dissected out; it was found to have, at a point corresponding to the middle of the popliteal triangle, a large opening, or rather cut, produced by some sharp fragment of bone, and from which hung a loose soft blood clot.

This case is undoubtedly one of great interest and importance, both from the extent and character of the bone disease and the accident to the artery, which is among the rare accidents of necrosis. The disease was evidently of a very chronic nature, and possibly dated from the first attack, at the age of seventeen, for the history of similar cases has been satisfactorily traced for periods of twenty-five or thirty years. It is singular that such processes should have been going on for so many years with so little pain or disturbance of any

kind, for (except the two attacks described) until within eight weeks of his death this unfortunate gentleman had been one of the most active walkers and workers in our community, and just prior to taking to bed had been unusually engaged in business, which kept him on his feet many hours at a time. Pain, therefore, is no safe guide in judging of the extent and severity of bone disease.

This case affords, too, a forcible illustration of the fact, that hæmorrhage in the neighborhood of necrosed bone is always from a large vessel, generally the main trunk; this arises from two causes: 1st, The smaller vessels are, most of them, obliterated during the long inflammatory processes going on in such cases. 2d. The main artery, from its mere size and prominence, is of course most exposed to injury from sawing over or coming in contact with fragments; and moreover, being bound down by diseased products, is less free to escape by virtue of its elasticity. It may be worth while to mention, in conclusion, that since this patient's death I have learned, that some years ago he lost a brother, who died from an amputation for necrosis.

Original Lectures.

LECTURES ON THE GALVANIC CURRENT IN ITS RELATION TO PHYSIOLOGY, MEDICINE, AND SURGERY,

BEING AN INTRODUCTION TO SCIENTIFIC ELECTRO-THERAPEUTICS.

By WILLIAM B. NEFTEL, M.D.,
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LECTURE II.

LAWS OF THE NERVE CURRENT.

A CONSIDERABLE number of naturalists and physicians, even before Galvani, identified the nervous principle with electricity; and, according to the great Haller,* Hansen, Professor of Mathematics in Leipzig, born 1693, was the first to express clearly this idea. He thought that the different properties of bodies, all imponderables, and the nervous principle, depend upon one and the same fluid. Sauvages considered the nervous and electric fluid identical, and in his dissertation, which appeared in Montpellier, in 1749, thus expressed himself:—"Datur in homine fluidum tenuissimum, elasticum, mobilissimum, corporis interiora velocissime pervadens, electricum dictum."

The same opinion was entertained by the great Benjamin Franklin, Euler, Priestley, and others. But they were unable to support this hypothesis otherwise than by very weak arguments, the refutation of which was the insufficient insulation of the nerve, and the fact that ligation and section of the nerve proved an obstruction to the propagation of the nervous principle, but not of the electric current. Nevertheless there was a general disposition in favor of the identity theory; and this was the reason why Galvani himself so interpreted his first observation and subsequent experiments; otherwise he would have investigated more impartially the other phenomena, which, at one time, he himself, before Volta, called phenomena of metallic electricity. This also explains the great fascination exercised by Galvani's discoveries, which were hailed as the first happy attempt to introduce into the domain of experiment the doctrine of identity, which had before existed only as a dream, based on vague analogies. Notwithstanding Volta's victory, the electric nature of the nerve-agent was still supported by several great men like Ritter, Humboldt, Prochaska, Sir William Herschel, Abernethy, and others.

The merit of having first used the electro-magnetic rheoscope, for the purpose of finding electric currents in the nervous system, belongs to Prévost and Dumas (1823), although the result of their investigation was quite negative.

Faraday,* in his researches on the electrical fishes, admits the identity of the nervous power and electricity.

Lastly, Matteucci, after having spent many years in unsuccessful attempts to detect electrical currents in the nervous system, came to the conclusion that no such currents exist.

It was, therefore, one of the greatest scientific achievements when Du Bois-Reymond demonstrated the existence of the nerve-current and its laws.†

THE TRANQUIL OR QUIESCENT NERVE-CURRENT.

If a piece of the sciatic nerve of a freshly killed frog be introduced into the circuit of the galvanometer, so as to connect a point of the longitudinal section with a point of the transverse section, a current is obtained, the direction of which is, without exception, from the longitudinal section through the conducting arc to the transverse section. If a current be derived from two points of the longitudinal section, it will be much weaker than the former, and have a direction from the point nearest to the equator to the other point near the transverse section. No currents are obtained from two points equally distant from the equator, or from one transverse section to the other. Consequently, the law of the quiescent nerve-current is perfectly like that of the quiescent muscular current.

The tranquil nerve-current can be demonstrated not only by means of the galvanometer, but also by the galvanoscopic leg, an experiment which has been made by Galvani himself, and modified by Du Bois-Reymond in the following way:—Placing the two impregnated cushions upon an insolating glass plate, with the longitudinal section of the nerve on one cushion, and the transverse section on the other, and connecting the two cushions with the third intermediate one, the galvanoscopic leg contracts. The same law exists for every nerve of every animal,‡ for the nerves of sense as well as the motor and mixed nerves.

Du Bois-Reymond has further proved that the nervous centres, too, exhibit strong currents.§ In the brain and spinal cord every point of a transverse section is negative to every point of the natural longitudinal section of the spinal cord, or to the external surface of the brain. The same holds true with reference to the nerve-ganglia and the sympathetic.

The tranquil nerve-current being quite analogous to the muscular current, the existence of electromotor molecules in the nerves, as the generators of the current, is to be admitted, in the same way as in the muscle. Like the muscles, the nerves are to be considered as being continually in the state of a closed circuit, and every current obtained with the galvanoscopic apparatus must be deemed merely an accessory current, a derived current-branch. Lastly, just as in the muscle, the strength of the derived current indicated by the galvanometer expresses not in the least degree the current-strength in the electromotor molecules of the nerve; but it is probable, on the contrary, that the real

* Vid. Du Bois-Reymond: *Untersuchungen über thierische Electricität.* Bd. ii., p. 210.

* Faraday: *Experimental Researches in Electricity* (collected from the Philosophical Transactions). London, 1844. Vol. ii., p. 16.
† Du Bois-Reymond: Op. cit., Bd. ii., p. 251.
‡ Du Bois-Reymond: Op. cit., Bd ii., p. 257.

nerve-current possesses a power excelling any other current-intensity known, and which can manifest in the highest degree all the effects of which a current is capable.*

THE NERVE-CURRENT DURING ACTIVITY.

When a motor nerve is tetanized electrically, mechanically, chemically, or by strychnine, the galvanometer-needle indicates a decrease of its electrical current. The negative fluctuation of the nerve, therefore, is the electrical expression of the process of sensation and motion, and corresponds to the acid reaction of the active nerve, which is alkaline in the tranquil condition.

THE ALTERATION OF THE NERVE-CURRENT THROUGH THE INFLUENCE OF A CONTINUOUS GALVANIC CURRENT, OR THE ELECTROTONIC STATE OF THE NERVES.†

Ritter is to be considered the real discoverer of this most important class of phenomena. An untiring investigator, he made innumerable experiments, and gave in 1798 a complete exposition of the "Modifications of Irritability by the Constant Current." By introducing one of the frog's legs into the circuit of a constant current for half an hour or more, its irritability, as compared with that of the other leg, gets entirely changed. The modification of irritability depends upon the direction in which the current has traversed the nerve. Has it been a descending current, no contractions follow either at the opening or at the reclosing of the circuit; has it, on the contrary, been an ascending one, the contractions increase with the duration of the current, so that on breaking the circuit we get not only a simple contraction but a violent prolonged tetanus (Ritter's tetanus), from which the leg recovers but slowly, and only gradually becomes quiet. Ritter says: "Dreadful is the tension that all the muscles experience, and yet to quiet them instantaneously it suffices to close again the circuit; the leg, as it were, sinks then into a profound sleep, from which, however, it will be again awakened in the same horrible way by every renewed breaking of the circuit." If both legs be introduced into the circuit, so as to allow the current to traverse one of them in the ascending and the other in the descending direction, the two antagonistic conditions will be observed at the same time. If the direction of the current be changed, the condition of both legs will also change instantaneously; the one that was quiet will contract, and *vice versâ*. This experiment can be repeated many times with the same result.

Ritter then made a great many experiments on himself. Placing himself in the circuit of a strong continuous current, by touching one pole with one hand, and the other pole with the other, he noticed, on the silver side of the battery, in the fingers, hand, and whole arm, a sensation of numbness, stiffness and decrease of mobility, a considerable degree of paralysis; while on the zinc side, on the contrary, he found perfect ease and increase of mobility. This condition continued for a considerable time after the breaking of the circuit. Ritter explained this phenomenon by assuming that the constant current alters the nerve, which after the opening of the circuit undergoes different modifications of irritability. These modifications are not limited to the nerve-piece traversed by the current, but extend through the whole length of the nerve, as depression or as exaltation, according as the nerve has been subjected to the action of the descending or the ascending current.

Partly to this class of phenomena belongs the following observation of Volta, made in 1801.* He remarks that although the muscles remain quiet during the continuance of a constant current, nevertheless its influence upon the nerve still continues. If a current be sent through the legs of a frog, they will exhibit the closing and opening contractions in the usual way; but they will not answer with contractions after the current of a certain strength has traversed them for a considerable time. In such a case, the direction of the current has only to be changed, and the contractions will reappear even stronger than before. Continuing, however, this current for a considerable time, the legs again lose their property of contracting with this second direction, but regain their irritability for the first direction. This play can be repeated for a whole day, and longer, with the same result. From these observations Volta concluded that every current-direction diminishes the nervous irritability for the same, but increases it for the opposite current (Voltaic alternations).

In 1830 Nobili made the important observation, that frog-preparations in a state of tetanus become immediately quiet as soon as a continuous current traverses them in a certain direction. He explains this fact by supposing that the nerve gets altered by the constant current in such a way as to become incapable of transmitting the process causing contraction; and he therefore urges upon physicians to adopt the galvanic current in the treatment of tetanus in man.

Valentin has advanced still further in this direction. He made the following experiment.† When passing an ascending current through the sciatic nerve, near the knee, and then irritating the nerve near the pelvis with an induced current, no contractions followed, but they appeared as soon as the circuit was broken. Evidently the continuous current must have produced a change in the molecular condition of the nerve.

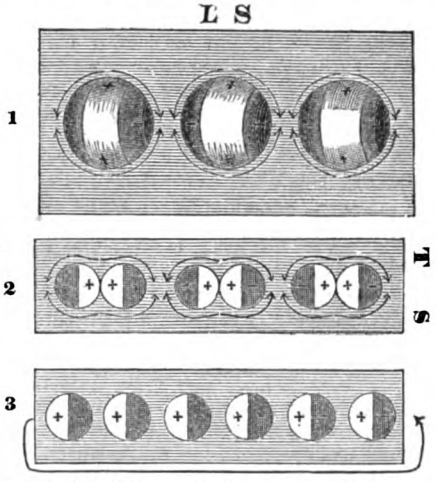
Du Bois-Reymond's researches upon this subject are as follows: Introducing a nerve into the circuit of a galvanometer, and noticing the deflection of the needle caused by its inherent current, a galvanic current is sent at the other end, and instantly the inherent current undergoes a change. It will considerably increase if the direction of the extraneous current coincides with the nerve-current (positive phase); it will diminish if the contrary be the case (negative phase). This alteration does not depend upon the penetrating of the extraneous current into the circuit of the galvanometer, because ligation or division of the nerve between the extraneous current and the galvanometer-circuit annihilates every trace of the alteration, though these operations could not prevent the penetrating of an electric current. This remarkable electromotor property of the nerves, to undergo a change in their whole length when a galvanic current traverses only a part of them, Du Bois-Reymond calls Electrotonus,‡ and he explains its phenomena by his molecular theory.§

It has been seen that the muscles and nerves are composed of hypothetical molecules, each of which has a positive equatorial zone and two negative polar zones, their axes being parallel to each other, and to the axes of the primitive fibres. By means of this so-called peripolar arrangement of the electromotor molecules it is possible to explain the laws of the muscular and nerve currents. This arrangement has only to be modified into that of the so-called dipolar electromotor

* Du Bois-Reymond: Op. cit., Bd. ii., p. 271.
† Du Bois-Reymond: Op. cit., Bd. ii., p. 289.

* Volta: *Collezione dell' Opere, etc.*, t. ii., p. ii., p. 219.
† Valentin: *Lehrbuch der Physiologie des Menschen.* Bd. ii., Abth. ii., p. 655.
‡ Du Bois-Reymond: Op. cit., Bd. ii., Abt. i., p. 294.
§ Op. cit., Bd. ii., Abt. i., p. 320.

molecules (which is but another expression of the same supposition), and the electrotonic condition of the nerves can be easily understood.



L S Longitudinal Section; T S Transverse Section.
Fig. 1, Peripolar arrangement of electromotor molecules.
Fig. 2, Dipolar arrangement of electromotor molecules.
Fig. 3, Pile-like polarization of the electromotor molecules, produced by a galvanic current.

Supposing every peripolar molecule divided into a group of two dipolar molecules, its electromotor properties will remain the same. If now a continuous current be sent through a portion of a nerve, the current will then exercise a directing influence over the electromotor molecules of the traversed portion; they will turn their negative zones towards the positive electrode, and their positive zones towards the negative electrode; and for this purpose it is only requisite that those dipolar molecules of every peripolar group which present the wrong position, should describe with their axis an arc of 180°, whilst the others remain in their original position. But the moment this arrangement has taken place, the molecular groups cease to act according to the original law of animal electromotors, and begin to act in the manner of a pile, and in the same direction as the current which has called forth the pile-like polarization.

Again the molecules of the traversed or excited nerve-portion will exercise a directing influence upon the molecules beyond the electrodes, and this explains the electrotonic phases.

The designation Electrotonus, Du Bois-Reymond has taken from Faraday.* The great discoverer of induction presumed a peculiar state, developing itself in conductors when approached to another conductor traversed by a current, or to a magnet, or when in the vicinity of these conductors a current or magnetism is generated. The entering into this electrotonic state Faraday considered as the cause of the closing current, the exit from it and return to the natural state as the cause of the opening current. When Faraday first promulgated his hypothesis of the electrotonic condition of matter, he could not then give it a positive basis, and only fifteen years later was he able to demonstrate, by the means of polarized light, the changed molecular condition of certain bodies under the influence of electrodynamic and magnetic forces.†

By the adoption of the theory of the electrotonic state of the nerves, Du Bois-Reymond established the analogy—almost the identity—of the processes of induction and nervous excitation which had already been admitted by Marionini. Indeed the closing and opening induction-currents are quite analogous to the closing and opening contractions; they are both of opposite directions, and appear only at the closing and breaking of the circuit, or at every fluctuation in the density of the exciting current, but not during its continuance, etc. Lastly, the pile-like polarization of the nerves by a continuous current precisely corresponds to Faraday's electrotonic state of matter.

THE MODIFICATION OF IRRITABILITY OF THE NERVES IN THE ELECTROTONIC STATE.

The consideration of this most important part of electro-physiology will show at once the value of the application of this doctrine to electro-therapeutics.

To study the phenomena of electrotonus, the nomenclature introduced by Pflüger must be adopted. In his classical researches,* he calls the continuous galvanic current producing the electrotonic state, or the pile-like polarization of the nerve—the polarizing or electrotonizing current; the state of altered nervous irritability at the negative pole of the galvanic current—Catelectrotonus, and at the positive pole—Anelectrotonus. Each of these kinds of electrotonus can be descending when propagated from the traversed nerve-piece towards the muscle, or ascending when the contrary takes place. The state of altered irritability between the poles of the galvanic current is called the intra-polar electrotonus, outside of them the extra-polar electrotonus.

It must be further mentioned, that for the study of these phenomena the use of the myographion† is required—a most ingenious apparatus, first introduced by Helmholtz, and quite indispensable in modern physiology. It serves to measure the greatness or degree of muscular contraction, *i.e.*, to ascertain how high a contracted muscle can lift a suspended weight; to measure the time for the different stages of contraction, or to determine the rapidity of propagation of an irritation causing muscular contraction. By means of the myographion the muscle is caused to lift, by its own contraction, a certain load and a lever, from which latter a steel-point traces a curve on a revolving cylinder, so that the beginning and successive stages of the contraction are traced by the muscle itself.

Helmholtz found that on a single irritation contraction does not follow instantly, but $\frac{1}{10}$ of a second elapses between it and the beginning of contraction, during which time the muscle apparently remains quiet. (Helmholtz's stage of latent irritation.) Then begins the shortening of the muscle, and continues with decreasing rapidity to a certain maximum, when the contracting force gradually diminishing, the muscle is stretched by the suspended weight, at first rapidly, then slowly, to its former length.

Graphically the muscular contractions are traced by the muscle itself, and represent a curve, the abscissæ of which correspond to the times, and the ordinates to the contractions.

With his myographion Pflüger has shown that the nerve in front of an ascending constant current presents an increased irritability, or in other words, *the ascending extrapolar catelectrotonus is always a condition of exalted irritability.*‡ It can be demonstrated by different methods, and using the gastrocnemius muscle with its sciatic nerve attached.§ One of

* Faraday: *Experimental Researches in Electricity.* Series I. London, 1839. p. 16. (New Electrical State, or Condition of Matter.)
† Faraday: *Experimental Researches on Electricity.* Series XIX., § 26. (On the Magnetization of Light and the Illumination of Magnetic Lines of Force.) Philosophical Transactions for the Year 1846, p. 1.

* E. Pluegger: *Untersuchungen über die Physiologie der Electrotonus.* Berlin: 1859.
† H. Fick: *Medicinischen Physik*, 2 Aufl., p. 81.
‡ Pluegger: Op. cit., 159. § Op. cit., p. 168.

his numerous experiments will illustrate it best: When, irritating the nerve with a very feeble induction-shock, the amount of contraction is found to be 0.3mm. (as shown by the myographion indicating the lift-height of the muscle), upon sending an ascending galvanic current between the muscle and the exciting electrodes the same induction-shock will produce a contraction of 8.6mm.*

Again, the increased irritability of the ascending extrapolar catelectrotonus can be beautifully illustrated not only by electrical but also by chemical irritation. For that purpose a drop of a saturated solution of common salt is applied to the nerve, carefully avoiding to wet its transverse section, and no contraction will follow. Now, if even the weakest ascending constant current be sent through the nerve between the muscle and the solution, a most violent and prolonged tetanus is called forth, which, however, instantly disappears with the interruption of the constant current. With the closing again of the circuit in the ascending direction, the tetanus reappears still stronger, and vanishes at once with its interruption. This can be repeated a great many times on the same preparation with the same positive result.

The foregoing proves that the ascending galvanic current raises the nervous irritability in front of it.

The strength of the extrapolar ascending catelectrotonus, or the degree of increased irritability, depends upon the distance of the nerve from the electrodes of the polarizing current: the more distant is the spot from the intrapolar nerve-piece, the less marked is the catelectrotonus. Different methods can be used to prove it. For instance, under the influence of the polarizing current, a feeble electrical irritation will, at a distance of 5mm from the cathode, produce a contraction amounting to 7.4mm; at a distance of 20mm the same irritation will give but 4.2mm, at 35mm from the cathode, only 0.9mm; and still farther there will be no difference in the contraction, whether the nerve be polarized or not. When using as irritation the closing or opening induction-shock alone, this law is still more manifest; for instance, for 5mm, 25mm and 35mm, as 7, 3, 0. Or again by moving the irritating electrodes from the intrapolar piece farther and farther, the greatness of contractions will diminish. Or letting the exciting electrodes remain at the same place, for instance near the plexus sacralis, the polarizing electrodes can be moved towards the muscle. The contractions are greater accordingly as the excited piece is nearer to the intrapolar portion. Very fine is the illustration of this law by the method of chemical irritation, viz: The electrodes of the constant (polarizing) current in the ascending direction being applied to the sciatic nerve immediately over the gastrocnemius muscle, and a drop of the saturated solution of common salt put at about 5mm distance from the negative electrode, a most terrific tetanus will ensue, which will, however, disappear with the interruption of the current. The same result is obtained every time the experiment is repeated. When on the other hand the descending current is used instead of the ascending one, no tetanus will be called forth. If the irritation (a drop of the common salt solution) be applied at a distance of 10mm from the negative electrode, and the polarizing (ascending) current closed, still the increased irritability will be observed, though the tetanus will be very weak. Applying the same irritation at a distance of more than 20mm from the interpolar portion, no effect whatever will be obtained, the muscle remaining quiet, although the polarizing current may possess the same strength. Again, this method can be modified by fixing the irritation at one spot, at the sacral plexus, and moving the polarizing electrodes towards the muscle. The result will be the same: violent tetanus when the irritation is near the intrapolar portion of the nerve, which diminishes and disappears with the increased distance.

From the foregoing Pflüger establishes the law that the strength of this altered molecular condition of the nerve, called forth in front of the ascending galvanic current, diminishes rapidly and disappears with the increasing distance from the negative electrode.

This law can be demonstrated also in the following very interesting way: The nerve-current itself in its ascending direction can be made to serve as a polarizing current. When to the sciatic nerve, the changed irritability of which we have to examine, we apply another nerve by two points, that is, by its longitudinal and transverse sections, and gently lift and again approach the longitudinal section to the sciatic nerve, we break and close the circuit of the nerve-current. Irritating the sciatic nerve when not polarized by the ascending nerve-current, we obtain, for instance, a contraction of 1.5mm; but during the closure of the polarizing nerve-current, a contraction of 3.2mm.

The strength of the ascending extrapolar catelectrotonus depends also upon the strength of the polarizing galvanic current. To demonstrate this law it is necessary to make use of the rheochord for graduating the current-strength from zero to its utmost. If nearly the whole strength of the ascending polarizing current be passed through the accessory circuit, allowing but a minimum to traverse the nerve-piece, yet the increased irritability of the catelectronized portion can be distinctly observed. Then gradually increasing the strength of the polarizing current traversing the nerve, we find the exalted irritability of the catelectronized part continually increasing until it arrives at a maximum, where the least irritation, which usually produces no contractions, calls forth a most violent tetanus. Continuing, however, to increase the strength of the polarizing current, the contractions get lessened, and with the greatest current-intensity entirely disappear.

Pflüger explains this remarkable law as follows: The exalted irritability in front of an ascending current invariably augments with every current-intensity, and only seems diminished with the strongest currents, the action of which renders the intrapolar portion unable to transmit (propagate) the irritation towards the muscle.

This law can be demonstrated by irritating the nerve not only electrically, but also chemically. For the latter test it suffices to apply a drop of the common salt solution, whilst the current-intensity is graduated by the rheochord. The same irritation will produce but a slight contraction with a weak current, and a tetanus with a strong one, whilst with the strongest possible current no contraction whatever will be produced.

Pflüger found, moreover, that the ascending extrapolar catelectrotonus depends also upon the length of the intrapolar nerve-piece. When the polarizing current is of moderate strength, then *cæteris paribus* the catelectrotonic irritability will continually increase with the greater length of the intrapolar portion. If, however, the polarizing current exceeds a certain intensity, the catelectrotonic irritability sinks with the increased length of the intrapolar portion. This law also can be demonstrated by irritating the nerve in front of the polarizing current, either electrically or chemically, and using the rheochord to graduate the current-intensity.

On breaking the polarizing current, the exalted irritability in front of the ascending galvanic current does not immediately return to its normal condition, but, on

* Op. cit., p. 176.

the contrary, the whole region of the extrapolar Catelectrotonus is wonderfully modified. Its increased irritability is such that the least irritation, which before would not have produced any contraction, now contracts the muscle most powerfully.

This new and wonderful condition, called by Pflüger * the positive modification of the nerve, produced by the constant electric current, is especially marked near the intrapolar portion, and continues for a considerable time after the opening of the polarizing circuit. The stronger the polarizing (modifying) current, and the longer continued, the stronger will be and the longer will last the positive modification, which slowly disappears, the nerve gradually returning to the normal condition. It is extremely surprising that, on opening the polarizing current, the irritability is for one moment diminished (negative modification); which, however, is scarcely perceptible, as the negative modification becomes instantly replaced by the powerful positive modification, which rapidly penetrates the nerve.

The descending extrapolar catelectrotonus follows precisely the same laws as the ascending extrapolar catelectrotonus.

Behind the ascending current, according to Pflüger,† the irritability of the nerve is diminished, or in other words, *the descending extrapolar anelectrotonus is always a condition of lowered irritability.*

This and the following laws can be easily demonstrated by the above methods, using the myographion, the rheochord, electrical and chemical irritation. I will therefore give merely the results of the detailed researches, and one example. The electrodes of the polarizing current are applied near the plexus sacralis; the irritation is produced below. On irritating the nerve, without closing the polarizing circuit, the muscular contraction amounts, for instance, to 8.0^{mm}; on closing the circuit and using exactly the same irritation, no contractions will follow. Making a section of the nerve, and re-adapting the ends together, we repeat the experiment, and obtain 8^{mm}, whether the nerve be irritated under the influence of the polarizing current or without it. With chemical irritation the same can be proved in the following manner. A common salt solution, applied to the nerve, after a while produces tetanus, which instantly disappears as soon as, above the irritated spot, the ascending polarizing circuit is closed.

By the methods already familiar to the reader, Pflüger has shown that the extrapolar anelectrotonus is strongest near the intrapolar portion, and diminishes with the remoteness from the positive electrode.

The descending extrapolar anelectrotonus augments continually with the increasing strength of the polarizing current, no matter to what height it arrives.

The extrapolar anelectrotonus augments also with the increased length of the intrapolar portion.

Finally, the duration of the polarizing current has an important influence upon the anelectrotonus, which in this respect differs very much from the catelectrotonus. The catelectrotonus appears with all its intensity almost instantaneously at the closing of the polarizing current, whereas the anelectrotonus progresses but slowly, showing scarcely a trace at the beginning, and gradually increasing to its maximum over the whole length of the nerve. By repeatedly closing the current, however, or using an extremely strong one, the Anelectrotonus too is made to rise more rapidly. *On breaking the polarizing (modifying) current, the anelectrotonus passes immediately into the positive modification, lasting more or less, according to the strength and duration of the polarizing current.* This law has no exception. Here, too, the positive modification increases slowly to an enormous height, where the least irritation, unable to produce any effect before, will powerfully contract the muscle after the opening of the polarizing circuit. The positive modification is especially strong near the polarizing current, and is in direct relation to the strength of the preceding anelectrotonus. It disappears very gradually and slowly from the remotest part of the nerve towards the intrapolar portion.

The same laws can be demonstrated by the same methods, *mutatis mutandis*, with regard to the altered irritability of the nerve behind the descending current, *i. e.*, that *the ascending extrapolar anelectrotonus is always a condition of lowered irritability.* After the disappearance of the anelectrotonus the positive modification remains, presenting the same peculiarities as in the descending extrapolar anelectrotonus.

The intrapolar portion of the nerve presents two antagonistic conditions, with regard to its altered irritability.* Near the negative electrode the irritability is exalted, near the positive it is lowered, and between the two is the so-called indifferent point, which, however, changes its place according to the strength of the polarizing current. Travelling in the direction of the current, the indifferent point moves the more from the positive electrode to the negative the stronger is the current. A feeble current, therefore, will place the indifferent point close to the positive electrode, and the greatest part of the intrapolar portion will be in a catelectrotonic condition; whereas a very strong current will transfer the indifferent point close to the negative electrode, and almost transform the entire intrapolar portion into a condition of lowered irritability, into anelectrotonus, with the exception of a point near the negative electrode, where the catelectrotonus will still prevail. Generally speaking, the intrapolar portion, near the negative pole, presents all the peculiarities of catelectrotonus, and, together with the extrapolar catelectronized portion, constitutes the catelectrotonic region with exalted irritability; the anodic intrapolar portion follows the laws of the anelectrotonus, and, together with the neighboring extrapolar part, constitutes the anelectrotonic region, where the irritability is lowered.

The above-mentioned law refers equally to the ascending and descending intrapolar portion of the nerve. As an illustration, the following interesting experiment of Pflüger† may be given: Applying the common salt solution at the intrapolar portion of the descending current, near the negative pole, an intense tetanus will be produced, which can be instantaneously checked by reversing the direction of the current; because the ascending current is in the anelectrotonic state at the point of irritation. When, on the contrary, the solution is applied at the intrapolar portion of the descending current, near the positive pole, an existing tetanus will disappear the moment the circuit is closed.

The laws of the Electrotonus being of immense importance for scientific electro-therapeutics, I will give a *résumé* of its most prominent features, which will be corroborated hereafter in the pathological part.

1. The moment a continuous galvanic current traverses a nerve-piece, the whole nerve undergoes a sudden change, the dipolar polarization presenting two antagonistic conditions. In the region of catelectrotonus the excitability is heightened; in the region of anelectrotonus the excitability is lessened.

2. The nerve is excited only by the appearance of catelectrotonus and the disappearance of anelectro-

* Pflueger: Op. cit., p. 269. † Op. cit., p. 277.

* Pflueger: Op. cit., p. 392. † Op. cit., p. 427.

tonus (but not by the disappearance of catelectrotonus or the appearance of anelectrotonus). This has been derived by Pflüger from his contraction law.

3. The appearance of the catelectrotonus is more sudden, and excites the nerve in a higher degree, than the disappearance of anelectrotonus.

4. Each of these conditions is more pronounced when it has been preceded by the antagonistic condition.

5. According to Bezold,* the conduction of the nerve during electrotonus is diminished, especially in the anodic region.

6. According to Heidenhain, the galvanic current traversing a nerve invigorates it, and restores its irritability lost either by fatigue or by the debilitating influence of an interrupted current.

The law of excitation must also be somewhat modified, according to Bezold. Whilst admitting that the nerve is chiefly excited by rapid fluctuations of the current-density, he says it is excited also, though far less, by a perfectly constant current. This is explained by the electrolysis, which always accompanies the action of a constant current when traversing a moist conductor, the irritation being effected by the products of electrolysis accumulating chiefly near the electrodes.

Although the laws of the changed irritability have been derived from the motor nerve, yet we have every reason to believe that they are the same with regard to the nerves of special sense and of sensation, as well as with regard to the nervous centres.

Already Du Bois-Reymond† has demonstrated that innervation in the motor and sensitive nerve is equally propagated in both directions of the nerve; and Pflüger has shown that the same takes place with regard to the dipolar polarization, which extends in both directions of the nerve. The distinction of the nerves as centrifugal and centripetal can only be admitted so far as the effect of their activity is manifested in the terminal organs with which they are in connection, either in the periphery or in the centre. But the motion of the nerve-molecules takes place equally in both directions, as can be ascertained by their electrical condition.

Indeed, every nerve, whether sensorial, sensitive, or motor, and every part of the nervous centres, present precisely the same electro-motor properties, and their electrical currents obey exactly the same laws. It would be, therefore, most unphilosophical to assume that only nerves of one kind, the motor nerves alone, are able to undergo changes of irritability under the influence of the galvanic current.

In the pathological part the phenomena of Electrotonus will be demonstrated in the most striking manner, especially with regard to the organs of the senses in the living man. I will, nevertheless, give here the result of experiments with regard to the spinal cord. Uspenski‡ made the following experiments, which I have repeated with the same result. On passing a constant current through the spinal cord of a living frog, by inserting near the cord one electrode (a needle) at its upper part, and the other electrode at the lower part, the results obtained vary according to the duration and direction of the current, which must not be very strong nor very feeble, as both produce tetanus. A current of medium intensity and of very short duration will not produce any marked effect; if, however, continued longer, 20 to 25 minutes, the same current paralyzes the spinal cord—the descending current sooner than the ascending. Finally, a current lasting five or ten minutes produces quite different effects, according to its direction. 1. Under the influence of the ascending current, the respiratory movements become extremely energetic, whilst the reflex movements of the lower extremities disappear altogether, or become very feeble. After this experiment, the frogs, let loose, jump and exhibit their normal spontaneous motions. 2. Under the influence of the descending current, on the contrary, the respiratory movements become feeble, and finally cease altogether, whilst the reflex-movements of the lower extremities persist for a long time. On being let loose, these frogs make no voluntary motions, although the reflex-movements are normal. After the action of the descending current the frogs die in the course of a few hours; after the ascending they live several days. This difference of action of the ascending and the descending current is still more manifest when the frogs have been previously poisoned with picrotoxin. In such frogs, the ascending current will instantly call forth tetanus, whilst the descending current will instantly check the convulsions produced by the poison.

These experiments show conclusively that the spinal cord presents the same properties, with regard to the galvanic current, as a peripheric nerve. In the region of the anode its irritability is lowered, whereas in the cathodic region it is exalted. *

* A. v. Bezold: *Untersuchungen über die elektrische Reizung der Nerven und Muskel.* Leipzig, 1861.

† Op. cit., Bd. II., p. 590.

‡ Uspenski: *Ueber den Einfluss des Constanten Stromes auf das Rückenmark.* Centr. für die Medicin. Wissensch.: 1869. N. 37.

Progress of Medical Science.

Hydrate of Chloral.—Dr. J. W. Ogle has been giving a trial to this new remedy in several cases. It has proved most useful and satisfactory in its action as a hypnotic in small doses—viz., doses varying from five to ten grains. In a slight attack of delirium tremens, twenty grains acted very sufficiently and well in procuring sleep. In one case only did any unpleasantness attend its administration, and that was when peculiar sensations about the head were complained of by a woman suffering from chronic peritonitis, who took five grains. On the following night four grains were given along with a few drops of chloric ether, and no such unpleasant results followed.—*Lancet.*

Copper as a Cure for Cholera.—Dr. Burg, in a work on the prophylactic and curative influence of copper in cases of cholera, quotes a report made by M. Vernois to the Council of Hygiene and Sanitation of the Seine, on the immunity of Parisian copper workers during the cholera epidemic of 1865-66.

The entire number of these workmen, comprising a population of 37,000, only presenting 29 cases of cholera, a proportion of 1 in 1,270.

The author institutes a comparison between them and the workers in iron and steel, who had 202 cases of cholera in a population of 28,000, that is to say, 1 in 209.

Lastly, in a population of 7,500 workers in other metals than copper, iron, or steel, 42 cases occurred, making a proportion of 1 in 178.

It is worthy of remark, that during the terrible epidemic of 1832, the numerous population of nightmen, dustmen, and knackers of Paris and Montfaucon, furnished no victims to the epidemic.

Experiments on the Pancreatic Juice.—In the Academy of Sciences of Paris, M. Chauvin and M Morat have recently read a paper "On the Pancreat

* In the last Lecture, the cut on p. 442 should have had the following explanation appended: L S, Longitudinal Section; T, Transverse tion; P, Par-electronomic layer.

Juice," and the conclusions at which they have arrived are—first, that the general results of their experiments on artificial digestion with this fluid agree with those made by older experimenters, from Eberle to Claude Bernard. Secondly, that in such experiments with artificial digestion the action of the pancreatic juice is not checked by the presence of gastric juice, nor by hydrochloric acid considerably diluted with water. Thirdly, that at ordinary temperatures, and in inert vessels, the juice does not act so energetically as when maintained at the temperature of the body, and under the influence of the movements of the digestive fluid. Fourthly, in the digestion that ordinarily takes place in the stomach—and this is a capital point—the pancreatic juice preserves its energies intact, notwithstanding the presence of the gastric juice, and may imitate in the interior of the stomach a complete digestion of the three species of alimentary substances. And, lastly, they state that in a clinical point of view they have obtained remarkable results with the aid of pancreatic juice and extract.

Dressing of Wounds.—Dr. John Wood, F.R.C.S., recommends, in the *Practitioner*, the combination of carbolic acid with the salts of zinc, copper, and iron, as a dressing for wounds. He employs the double salt thus formed either as a lotion or ointment, and considers it superior to any other dressing as a preventive of pyæmia.

The Seat of the Instinct to Take Food.—Mr. Geo. Combe, Mr. Crook, and Dr. Hoppe, of Copenhagen, independently arrived at the conclusion, that the portion of brain, lying under the zygomatic arch, is the seat of the instinct to take food. Mr. T. Symes Prideaux, in defending the views laid down by Gall relative to the functions of the brain, writes that during twenty years he has observed the development of this portion of the brain, he has never seen a case where a great depression in the region was not accompanied with more or less weakness of the digestive functions, and entertains no more doubt of the connection than he does of his own existence.—*The Quart. Jour. of Psychol. Medicine.*

The Noematachograph.—M. Donders' instrument to determine "the Velocity of the Physical Functions of the Brain" is called the *Noematachograph*, which is composed of a cylinder on which time is registered by means of a diapason making 261 vibrations in a second, and moved by electro-magnetism, on the principle proposed by Helmholtz. These vibrations can be divided into fifths, and three thousandths of a second obtained.

Forced Flexion of the Limbs in Traumatic Hæmorrhage.—M. von Adelmann, of Dorpat, in a paper laid before the Belgian Academy of Medicine, and founded on ten cases occurring in his practice, arrives at the following conclusions:—1. Forced flexion is a valuable means of arresting traumatic hæmorrhage. 2. It should be employed before having recourse to other hæmostatic agents. 3. It may be resorted to in cases in which the nature of the artery has failed. 4. A knowledge of its mode of application should be popularly diffused, to allow of its being at once adopted while awaiting the arrival of the surgeon. 5. Such knowledge would be very useful in armies. 6. It is very desirable that the annals of surgery should bring the subject into prominent notice.—*La Presse Belge.*

Goitre Cretinism.—M. Garrigou, consulting physician at the Mineral Springs of Aix, asserts that certain endemics are due especially to the existence of magnesia, and more rarely to that of silicate of that earth, in the soil, which modifies all organisms, both vegetable and animal. His doctrine is based upon extensive observations made in the districts of the Pyrenees where such maladies are endemic, and are coincident with such geological constitution.

Fracture of the Patella.—According to the clinical records of Mercer's Hospital, Dublin, Malgaigne's hooks have proved eminently successful in the cure of fracture of the patella. Dr. Morgan, of that hospital, describes a case of transverse fracture, the lower portion being also split vertically. He says:—On the day after, I applied Malgaigne's hooks, fixing them well into the fragments, and drew them together till complete apposition was attained; the leg was put in a moderately elevated position, and a cold lotion applied. From this date, to use the patient's own expression, he "never had five minutes' uneasiness," and at the end of six weeks the parts were examined carefully, when very perfect union was found to have taken place. The hooks were removed, and plaster straps substituted, and he was allowed gradually to use the limb. He subsequently got an attack of bursitis, which lasted some weeks, and arose from his making too free.

I saw him several times last winter, eight months after the accident; the fragments were in perfect apposition, and the union *seems* altogether bony; there is not the slightest mobility between the upper and lower parts of the patella; he *ran* up and down the room for me, and is able now to follow his occupation as racket-marker, and to engage in the game, at which he is active.

The hooks in this case answered to perfection; and I may mention in four other cases which have been in the hospital since then.

The only inconvenience I found was the pressure of the connecting bar between the hooks on the tumefied skin: this can be obviated by taking care that it is well elevated over the surface of the patella, and by inserting some wadding or lint.

The hooks were applied within forty-eight hours of the occurrence of the accident, and cold lotions were sedulously applied to reduce the distension, and the subsequent attack of bursitis had no connection with their application.

Diagnoses of Primary and Consecutive Coxitis.—Louis Bauer, M.D., M.R.C.S., St. Louis, Mo. (*St. Louis Med. and Surg. Journal*), believes that there is a considerable difference between *primary* and *consecutive* coxitis in children, both in a chemical and pathological aspect. The primary form is best understood, almost invariably having traumatic causation, commonly originating in lesion of the round ligament. The consecutive form of this disease is by no means rare, although it bears no numerical comparison with the primary. The causes which give rise to this malady are varied, the most frequent being periostitis and abscess in the immediate neighborhood of the joint.

The most prominent operative causes governing the differences of the two forms of infantile coxitis are:

1st. *The tissues originally involved.*—In primary coxitis of children, the eventual ulcerative destruction of the ligamentum teres unavoidably determines the structural disintegration or detachment of the femoral head, from want of physiological maintenance. In consecutive coxitis, the round ligament is not more endangered than any of the other components of the hip-joint, and if preserved, as he has mostly found it, the cause of caries of the femoral epiphysis from this source is consequently limited.

2d. *In primary coxitis the morbid exudation forms within the joint.* Hence symptoms are engendered of intra-articular pressure and distension of the capsular ligament. This condition not only gives rise to that

malposition of the affected extremity so peculiar to the second stage of morbus coxarius, but likewise to reflex symptoms which have attracted the attention of clinical observers, Now, all the symptoms are entirely wanting in consecutive coxitis, because the matter generally enters through a large aperture of the capsule, from without, and can neither collect, nor cause intra-articular. pressure. 3d. On account of the absence of reflex contractions, it is obvious that there can be *no abnormal abduction and apparent shortening* of the limb in the consecutive form. 4th. The *caries of the joints* is generally more extended over the acetabulum and the neck of the femur, but mostly superficial. Sometimes the neck alone is corroded, and in more protracted cases the disease extends gradually over the head of the femur and acetabulum.

Dr. B. also remarks that periostitis of the femur, particularly when close to the hip-joint, is apt to occasion symptoms not unlike those in idiopathic infantile coxitis, to wit: nocturnal pain, with oscillation and contraction of certain muscles, with consequent malposition of the affected extremity. So striking may be the similarity of the clinical character, as to lead to erroneous diagnosis.

Transfixion of the Heart without Death. — A rare, if not absolutely unique, pathological fact has been communicated to the Institute of Sciences of Milan, by Dr. Biffi. He showed the heart of Count Philippe Manci, a lunatic, who, in an attack of frenzy, killed his father, and who had made several attempts at suicide, dying finally in a successful effort. The autopsy shows a needle implanted in the heart, so that four and a half centimetres of it extended into the left ventricle, and the point, perforating the mitral valve, passed for one centimetre and a half into the corresponding auricle.

Inquiry resulted in its being discovered that the lunatic had declared that he had introduced the needle into his heart twenty-two minutes before his death; but, having presented no morbid symptom or functional derangement either of his chest or heart, or even of his pulse, this avowal was taken for one of his numerous fantastic stories.—*Med. Press and Circular.*

Digitalis as a Remedy.—Withering, in the year 1775, brought to the special notice of the profession the remedial powers of digitalis, in the successful treatment of dropsy.

Poisoning with Petroleum.—Dr. Theodore Meyer recently communicated the following case of poisoning to the St. Clair Co. Medical Society, Illinois: A child eighteen months old was poisoned by the administration of a tablespoonful of petroleum by another child. It was cyanotic, and respiration had ceased. By enemata of vinegar, dashing cold water over the face and chest, warm friction of the extremities, and perseverance in Marshall Hall's "Ready Method," respiration was re-established, and after violent emesis of petroleum and coagulated milk, following the forcing into the stomach of warm milk with yolk of egg, the case terminated favorably.—*The Medical Archives.*

A Combined Wire Speculum and Retractor.—Dr. Francis H. Brown, of Boston, in vaginal operations employs a simple iron wire speculum, which answers the additional purpose of a retractor. Both folds are shaped nearly in the form of the letter S. Five sizes are made by Dr. B., of iron wire, joined by hard solder and then nickelized. The iron used is numbered 10 and 13 of Stubbs (English) wire gauge. The objects for which he proposes these instruments, are the following: Singly, the larger instrument has been found well adapted to take the place of Sims's speculum. It displays the vagina equally well; it is much lighter; equally strong; and no less easy of application. The two together, as retractors or in place of the copper spatulæ, have served well to dilate the vagina, and bring into view every part of its wall, up to the cervix. A still further advantage of these instruments is their very trifling expense; the whole set of four being furnished by instrument-makers at a sixth part of the price charged for any of the elaborate forms of specula.

Treatment of Uterine Catarrh. — Joseph Kammerer, M.D., Physician to the German Hospital and Dispensary (*The Am. Jour. of Obstetrics*), in the treatment of uterine catarrh, has abandoned the use of pulverized substances, ointments, and medicated crayons; the first, because they cannot be uniformly applied to the whole uterine cavity, and both the latter because they are generally expelled by uterine contractions immediately after their introduction. The local remedies to which he has given the preference may be classified under these heads:—1st. The actual cautery. 2d. Solid substances. 3d. Liquids.

1st. The *actual cautery* is superior to all other caustics in the treatment of large eroded surfaces, or soft spongy granulations existing on the vaginal portion, and chiefly so when the cervix is much enlarged and indurated. 2d. Of all the solid substances there is none now generally employed except *nitrate of silver.* He has restricted the employment of it to the affections of the vaginal portion and the cervical cavity, its application to the body being frequently followed by intense pain, and hæmorrhage difficult to control. 3d. *Liquids* have many advantages over all others, the principal one being the facility of graduating the strength of the solution according to the requirements of each individual case. The remedies in this form used by Dr. K. are chromic acid, Lugol's solution of iodine, and carbolic acid; sometimes sulphate of zinc and pyroligneous acid. The concentrated solution of chromic acid consists of chromic acid two parts, water one part, and is chiefly applicable where luxuriant granulations or vegetations are to be destroyed. Lugol's solution, in its concentrated form, consists of iodine one part, iodide of potassium two parts, water four parts; its use is indicated in those cases in which catarrh is combined with hypertrophy of tissue. Carbolic acid dissolved in an equal part of water renders excellent service when applied to eroded surfaces with a tendency to hæmorrhage, and the same may be said of pyroligneous acid in its undiluted form. Sulphate of zinc, 10 grs. to 1 oz. of water, is a valuable astringent in those cases of hypersecretion in which no erosion are visible.

Dr. K. adheres to the use of the cylindrical [illegible] speculum, both for examinations and operations [illegible] for in treating this affection.

For the purpose of dilating the uterine canal, [illegible] copper or German silver sounds—four in [illegible] has been devised, which daily use has tested [illegible] tire satisfaction. Each of them has a sligh[illegible] at a point situated two and a half inches [illegible] tremity, and they are so gradu[illegible] cessive introduction, the uter[illegible] with the use of a modera[illegible] dilators are always intr[illegible] each one being gently rotated whilst it [illegible] ward. Before applying the topical re[illegible] copious injections of warm water are [illegible] India-rubber long-nozzled syringe. T[illegible] plied by means of the syringe, or a small brush.

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New York, December 15, 1869.

RANK OF MEDICAL OFFICERS IN THE NAVY.

THE profession has had its attention called to the anomalous condition of its members who have been allured from the field of private practice to permanent employment in the naval service of the United States. Since Vice-Admiral Porter is said to be influential in the administration of every department of naval affairs this condition has become a cause of loud and just complaint. Whether through his instigation or agency is not absolutely known. Inasmuch, however, as Mr. Borie—as well as Mr. Robeson, his successor in the office of Secretary of the Navy—was ignorant of the details of naval organization, and knew nothing of the merits of the question about rank long pending in dispute between line and staff officers; and also inasmuch as within twenty-four days after Mr. Borie was inducted into office, with Vice-Admiral Porter as his assistant, appointed and recognized as the reliable adviser of the new secretary by the President of the United States, the condition of staff officers, previously almost intolerable, has greatly deteriorated. The unequal degree of rank which had been fairly assigned them early in the war—unequal in comparison with the increase of grades and rank given to the line by Congress—was greatly reduced, at the same time reducing the meagre pay of those who had been retired because they were 62 years of age, or because they had lost their health through professional labor and exposure in the line of duty, and humiliating them before the naval service. Under such circumstances it may not be unreasonable to ascribe the origin of those numerous general orders which are so disparaging to the staff officers, to some head versed in the technicalities of the naval service. But a well-known and much-esteemed surgeon of the navy, whose voice has been often heard in advocating the rights of his grade, has declared (see *Transactions of the American Medical Association*, vol. xx., p. 38), that, "So far as Admiral Porter is concerned, I know, and I am proud to say, that the medical corps has no truer friend than he." It is not easy to go behind such testimony. Yet there are those who surmise that though the hand is Esau's, it is the voice of Jacob, because to experienced ears those orders have the true imperative ring of the quarter-deck. Strong as the Vice-Admiral's friendship for the medical corps is, it is not impossible that his influential voice or interposition was not potent enough to shield it against the shafts of its disparagers, deftly placed in the docile hands of Mr. Borie to be let fly before he had time to estimate the wounds they would inflict. The staff officers were warned that unless Mr. Grimes's survey bill was passed by the House of Representatives without amendment the rank conferred upon them by Secretary Welles should be taken away. The threat did not coerce the House, even after it was executed.

But it is not important to know who is personally or morally responsible for those measures which are so much deprecated by the staff on the one hand, and so much praised by the line on the other. What the people desire to know, and what Congress should ascertain is, whether wrong has been done, whether our professional brothers occupy a position in the naval service relatively to all which is worthy of efficient representatives of a humane and honorable profession—a profession which needs for its exercise as much native intelligence and virtue, as much knowledge and culture, as any other pursued for the benefit of man or society.

The organization of the navy of the United States is an imperfect copy of that of the British navy. The latter includes the idea of social as well as military rank, for the obvious reason that the laws of England recognize grades and ranks in civil life analogous to the grades and ranks necessarily included in military organizations. Those of the line of the American navy, especially the younger men, seem to entertain a notion that their military rank imparts to them in some indefinite manner the caste qualities which distinguish the aristocracy—the titled men of England in civil life. Their conduct on board ship often implies that they consider themselves better than their fellow-citizens generally. There is no other theory to account for their arrogance and prejudices against staff officers.

How or whence do they acquire conceits of this sort? They are recruited from among the sons of fathers who gain a livelihood in every kind of industrial occupation. Farmers, mechanics of every name, physicians, lawyers, merchants, clergymen, teachers, architects, clerks, all laboring to live, confide their sons to the Government instruction at Annapolis. The boys admitted to the Naval Academy are poor men's sons, boys who are free from any taint of aristocratic breeding or boast of noble blood. But at the end of the scholastic term of four years, it is observed that with a smatter of French and Spanish, mathematics, the rudiments of English, a slender knowledge of seamanship and navigation, infantry drill, gunnery, and the use of steam, they also acquire a rooted notion that they constitute a distinguished caste of Young-America nabobs. They learn

that it is inconsistent with their dignity to employ their hands ungloved otherwise than in the manipulation of implements invented to destroy life. In their eyes manual labor, no matter how skilled and useful it may be, defiles a man. They apply contemptuously the epithet of "greasers" to men who are masters of the intricate problems of steam and the management of marine engines, only because they are largely assisted in acquiring knowledge by manual labor. The majority of their preceptors are officers of the line, who transmit to their pupils all the prejudices of the caste which they themselves acquired in their pupilage. A consequence is that the staff is continuously contending against notions which are based on nothing better than traditions. This moral evil may be abated by selecting a majority of the professors from civil life, men who are skilled in the noble art of teaching and capable of recognizing merits of every kind.

Has not the time yet come when it is proper that our naval organization should conform in all essential particulars to the principles which lie at the foundation of all institutions which are parts of a republican government? Or is it still expedient to foster a conceited caste, a sort of self-sufficient and self-asserting aristocracy, engendered and bred at the public expense in the Naval Academy? Being well educated at the public cost is no disparagement to any man, especially when in return for it he gives back all his acquired knowledge in the service of the public, possibly with his life to boot. What we deprecate is that the nation should pay for mental culture which includes instruction calculated to lessen the efficiency of its servants. Exact knowledge is beyond all price. Money spent in properly educating and qualifying any portion of its citizens for its own service is profitably spent by the government. But the results of culture at Annapolis, in the broad sense, are not unexceptionably such as is required. Possibly there is too much taught and too little learned that is valuable in the profession which the alumni of this school are to follow. They are not found to be very apt to learn how to manage ships at sea, if we may rely upon the criticisms of some experienced and judicious officers. They say that very few of the graduates can be safely intrusted with the watch at sea, even after they have been advanced through the grades of ensign, master, and lieutenant; and that there are lieutenant-commanders who are not capable of tacking ship under all circumstances. Yet in the drawing-room few gentlemen surpass these young officers in social qualifications. But that is not the field upon which they should be educated to shine exclusively. Whatever else they may be, line officers should be seamen—men versed in the theory and practice of their calling, and "steeled against all the dangers of battle and tempest, yet of cultivated mind and polished manners." Macaulay tells us that, "There were gentlemen and there were seamen in the navy of Charles II. But the seamen were not gentlemen, and the gentlemen were not seamen." In the past two hundred years things have changed. Now seamen may be gentlemen, and gentlemen may be and are seamen.

Every alumnus of the Naval Academy should be acquainted with the principles and theory of naval and military organizations; they should know the difference between martial and military law, and clearly understand the meaning of the words line, staff, grade, rank, command, executive officer, commanding officer, and be able to define these terms without hesitation. A majority of the graduates are ignorant of these matters, and to ignorance of this character is ascribable in a degree the long controversy on the rank of staff officers of the navy. For instance, a pamphlet on "Naval Rank," signed, "Olimgus," which is attributed to a rear-admiral, defines rank to be "a device or expedient absolutely indispensable to the exercise of command," and from this definition argues that rank is needed for those only whose function is to command, and therefore concludes that rank ought not to be conferred on staff officers, because it is the prerogative of line officers to command in the navy. A line writer, in *The Daily Morning Chronicle*, of Washington, D.C., whose essay is reproduced in *The Press*, of Philadelphia, tells us that rank is "a condition but little understood and not unfrequently entirely disregarded. It is based upon and presumes merit;" "is an auxiliary of discipline" and efficiency, &c.

At the risk of being too didactic, we venture to explain some of these terms, which seem to be so very obscure to some naval gentlemen.

The progress from naval cadet to admiral is on a *line* of steps, each of which, in immediate succession, is temporarily occupied. Each step or gradus over which the naval cadet must pass is named: these grades are called midshipman, ensign, master, lieutenant, lieutenant-commander, commander, captain, commodore, rear-admiral, vice-admiral, admiral. This series of grades is denominated the line of the navy, for obvious reasons; it is a long line of succession. At the present rate of promotion the career from naval cadet to rear-admiral requires, to be fairly accomplished, a period of about forty-five years. It is the vertebral column of the naval body; but it cannot stand alone or be useful without members and organs to sustain and support it. With this view there is added to it grades of medical men, paymasters, engineers, chaplains, professors; and because these members and organs impart activity, rendering available the vertebral force, and afford support to the column, they are denominated the staff, without which the naval body would be impotent, in fact unable, to retain life in any valuable degree.

It may be said, in one sense at least, that impenetrability is a property of the line; for each officer in it occupies a distinct position. It is never unoccupied, because for each place there stands ready a successor to fill it, as soon as it is vacated by death or promotion; but no two officers can occupy the same position in the

line at the same time. Each position has a fixed relation to every other position in the catenation of classes termed grades. The position of the officer in the line is called his rank. In its military acceptation, then, the word rank means no more nor less than position relatively to others.

Position or rank in the line is first acquired by the competitive examination of naval cadets at the time of graduation, and then only is it "based upon and presumes merit." Subsequently rank is simply accorded to seniority, and increases with it progressively. Rank in the line is never retrogressive, except only by sentence of a court-martial.

Rank in the line has properties which increase in value and importance as it rises in the scale. It determines for the possessor the locality of his sleeping berth on board ship, as well as of his seat at the mess-table and council-board or court; his succession in the order of his going from or returning to the ship; his seat in the boat that conveys him to and from the shore with others of his grade; whether he may have the exclusive use of a boat; the ceremonial of respect enacted when he goes or comes; what personal service may be extended to him; the hour at which his candle shall be extinguished at night; the degree of his power and discretion as well as the limits of his command; and last but not least, rank guides the department in its assignment of line officers to duty. Then, too, there are personal immunities and exemptions which are customarily accorded to certain degrees of rank, increasing with its increase.

Rank is also the index of precedence on occasions of ceremony, and in some measure determines social relations in the naval community. But "Olimgus" says rank is one thing and precedence another, and as a whole a very different thing. Rank and command are eminently Siamese, for each is absolutely part of the other, and no skill in amputation, adroitness in adjusting balances, or pressure of steam, can separate them without producing fatal effects. But rank and precedence are not so bound together.

Yet "Olimgus" is mistaken in his premises. A line officer always has a rank, and the precedence which is an incident of that rank. Neither his rank nor its precedence ever fluctuates, nor is either ever contingent upon external conditions; but he is often without command, or the right to command, but never without rank. An officer while on leave of absence or waiting orders has no right to command any person whatever anywhere. If he had, naval operations would be exposed to interruption or defeat through unauthorized and inopportune interference of any superior officer on leave who might choose to issue orders to his inferiors. Right to command is derived, not from rank, but from the President of the United States through the Secretary of the Navy, and its limits are always defined in the orders or instructions issued to the officer. Being placed on leave of absence takes from him an officer's right to command, but without altering his rank or the precedence to which it entitles him. It must be self-evident then that rank and command are not "Siamese" and inseparable, but absolutely distinct. Rank and precedence, however, are inseparable. The precedence of a line officer on leave, in a funeral procession for example, is determined by his rank, although it gives him no right to command any one who may be present. "Olimgus" supposes that because the laws of England recognize a fixed precedence in civil life for the various grades of nobles and gentlemen, that staff officers of the navy should have an established precedence of an analogous character, but no rank. The civil rank of England is social, not official; it has no general order of succession which is of a specific, paternal origin. The precedence attached to it is purely for ceremonial purposes. Staff officers of the navy need a military rank having all the properties and qualities which pertain to rank in the line, except only the right to command in that branch of the servive. Socially, medical officers and others of the staff are satisfied to stand upon their individual qualities.

The officers of the staff grades are nearly equal in number to those of the line. They claim to be equally essential to the organization of the navy; to be equally military men, because, like those of the line, they are ruled by military laws; that their commands are military, because they can be enforced only by military tribunals, and being military men and combatants—because no one who takes part in or contributes to the success of a battle by his presence is a non-combatant—they claim to be entitled to a rank having the identical properties of line rank, except only a right to command in the line or to assume the functions or duties of line officers. They claim also, that they are no less interested in the efficiency and popularity of the navy, and no less proud of its renown, because they know that without their presence and labors the navy could not have acquired its glories. They claim further, that their experience in the service entitles their opinions on this question to the same degree of respect as is claimed for the opinions of the line.

The design of the Navy Department and of Congress to confer on medical and other staff officers a substantial rank, having the properties of rank, has been defeated by the contumacy of the line, manifested by all kinds of illogical pretexts and pettifogging subterfuges at different times. In corroboration of this assertion we refer to a correspondence between the late paymaster Sam Forrest, and the late commodore Thos. ap Catesby Jones, at the time serving together on the coast of California. The paymaster complained, Oct. 21, 1848, that the commodore had ignored his rank. After waiting ten months for reply, the paymaster reminded the commodore, August 17, 1849, that his letter of Oct., 1848, had not been answered, and complained again that his rank had been entirely disregarded ever since he had been on board the ship. On the 18th August, 1849,

Commodore Thos. ap Catesby Jones, "Commander-in-Chief U. S. Naval Forces Pacific Ocean," replied. Referring to the General Order of May 27, 1847, which is now law, he wrote:—"For the life of me, such is its ambiguity that I am unable to give it any practical construction conformable with well established military principles, one of the most stable of which is, as far as my experience goes, that *non-combatants* never command regular *officers of the line* under any circumstances whatever. If there is anything clearly expressed in the circular in question, it is that the assimilated rank conferred thereby does not carry *authority to exercise military command* nor give additional right to quarters." In his judgment he had the effrontery to say, this general order conferred rank on non-combatants only "in society when off duty." "The circular speaks of 'commanding and executive officers:' no such rank or grade as executive officers is known to the law—every officer, whatever may be his grade or rank in the navy, charged with the performance of any particular duty, becomes an 'executive officer' while he is executing the orders of a superior. . . . Another difficulty arises in attempting to carry out your construction of the circular, as rank and command would then be governed more by the *boat* or particular vessel, than by commission or length of service in the navy, for *commanding* officers as well as *executive* officers are merely temporary and accidental *positions*, varying and changing from day to day and from hour to hour. The captain of a ship is her '*commanding officer*' when on board; the moment he goes over the ship's side, if but for an hour, the officer next in rank becomes the '*commanding officer;*' and it might be a second lieutenant in the absence of the first. . . The moment the captain and first lieutenant leave the ship, the second lieutenant, or officer of the line next in rank, becomes the *commanding* and *executive* officer too of that vessel. . . Apply the rule, as construed by yourself and some other *non-combatants*, to surveys, courts-martial, and other mixed service, and nothing but strife and confusion can possibly grow out of it."

Such are the arguments used twenty years ago, and still in the present hour, to justify the line in ignoring the properties which lawfully belong to the rank conferred on staff officers. The line officers are not astute enough to understand that the term commanding officer is used in the law to designate the officer duly appointed by the Secretary of the Navy to command, and executive officer means him who is next in rank to that commander of the vessel. Be the construction what it may, the legalized general orders designed to confer rank have utterly failed in their purpose, mainly, it is believed, because the precedence of the rank conferred was made to be contingent upon the presence of executive or commanding officers of the line, which is construed practically to read, all officers of the line on all occasions, with the effect of rendering the existing law and regulation on the subject absurd. They should be expunged, and Congress should make a law instead which shall be so explicit in phrase that it shall have one meaning only alike to the highest and lowest degree of intelligence found in the line or staff.

By convening a board of line and staff officers to consider and report on all questions relative to rank in the navy, the Navy Department acknowledged that the staff officers are entitled to proper degrees of rank or position relatively to the line. As that board, which was adroitly constituted so as to secure a majority against the views entertained in common by the medical staff as well as others, was dissolved without agreement upon any plan, it remains for the Naval Committees of Congress to collect all the reliable data understandingly, and from them frame a law which shall meet the requirements of the case, and be just to all. It is time that line officers should cease to dictate to the national legislature the measures it shall or shall not adopt to rule the navy. The line officers on duty in the Navy Department have grown to be, in an undefined manner, a sort of auxiliary naval committee of Congress; and because they are deservedly renowned for naval prowess, it seems to be admitted that their logic and knowledge, acquired only through the influence of the imperative mood of the quarter-deck, must be of a character to qualify them to be statesmen of the highest order.

For our professional brethren in the military service, whether of the army or navy, we respectfully demand just consideration at the hands of Congress. The seamen and soldiers of the military establishment, when sick or wounded in the service of the nation, are entitled to the attention of medical men of the highest qualifications the country affords. But such attention cannot be obtained for them as long as medical officers are exposed to such humiliation and contumely as have been put upon them recently in the navy, as the case of Dr. Charles L. Green abundantly shows.

Reviews and Notices of Books.

THE SCIENCE AND ART OF SURGERY, being a Treatise on Surgical Injuries, Diseases, and Operations, by JOHN ERIC ERICHSEN, senior Surgeon to the University College Hospital, and Holme Professor of Clinical Surgery in University College, London. From the Fifth enlarged and carefully revised London Edition, Illustrated with Six Hundred and Thirty Engravings on wood, with additions by JOHN ASHHURST, JR., A.M., M.D., Vice-President of the Philadelphia Pathological Society, Fellow of the College of Physicians, etc., etc. Phila.: Henry C. Lea, 1869. 1 vol. 8vo., pp. 1228.

THE work before us is too well known to practical surgeons and students of medicine to make it necessary to particularize its special merits. Four large editions have already been exhausted, and the fifth comes to us swelled into the capacity of a double volume. We say double volume, for the present American edition is made really such from the two volumes of the last London edition. The great amount of additional matter that has found a place in the present issue, has en-

abled our talented author to bring every subject in his peculiarly terse and practical manner up to the present date. As the work now stands, as a general text-book for students, and as a guide to the general practitioner, nothing is left to be desired. The illustrations are numerous and admirably executed, very many being entirely new. No subject within the domain of general surgery is slighted, and more—some which we have been accustomed to deliver over to specialists, are treated of in sufficient outline to give the practical surgeon a clear idea of the services which his general skill may enable him to render. Among these special branches we may mention those of syphilis and ophthalmology, the preparation of chapters on which has been respectively entrusted by the author to Messrs. Berkeley Hill and Streatfield. The American editor has wisely abstained from lengthy and self-glorifying interpolations, and has done his best to render this edition specially adapted to the wants of practitioners on this side of the Atlantic. We unqualifiedly recommend it to every student of medicine, and to every practitioner.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, Nov. 10, 1869.

DR. LEWIS A. SAYRE, PRESIDENT, in the Chair.

(Continued from page 454.)

THE TREATMENT OF ANEURISM BY GRADUAL COMPRESSION.

DR. BUCK presented two specimens of aneurism—one of the axillary artery, and a double one of the popliteal—with a view of showing the condition of their contents in reference to two different modes of treatment.

The case of popliteal aneurism was of recent origin, and occurred in a patient over sixty years of age, of a leuco-phlegmatic temperament, and of a cachectic habit. The axillary aneurism occurred in a patient thirty-five years of age, of apparently good constitution; and in his case, also, the appearance of the disease dated back only a few months. In neither case was there a traumatic origin. Both of the patients died within a day of each other—one on the twentieth, and the other on the twenty-first. In both cases the symptoms supervening were those of pyæmia; in one there being metastatic abscesses in the lungs, in the other the inflammation confined itself chiefly to the parts in the neighborhood of the operation.

In the case of the popliteal aneurism, the method of treatment was the application of a ligature by an instrument devised for the purpose, with the intention of compressing the artery partially during a definite period, which was thirty-six hours, and completely during twelve hours, and then removing the ligature. The ligature was passed through a double canula, and tightened by means of a miniature tourniquet, a smooth plate at the extremity of the canules resting upon the artery. The vessel was exposed, and the ligature passed round it, and then tightened by successive half turns, deliberately made, while an assistant carefully observed the effect upon the tumor. At the moment when pulsation ceased, the constriction was let up. As the result, the sac soon lost its plumpness. After this the ligature was relaxed by half turns up to the moment when the pulsation returned in the aneurism. At that point the instrument was left and steadied in the wound by appropriate dressings. When first left, the outlines of the tumor could not be distinguished, although pulsation was feeble within it. In six hours it again assumed its plumpness, was well defined, the pulsation more distinct, and the tumor firm and more resisting. Before the expiration of the first period of six hours of incomplete compression, the constriction was increased, and all the time the tumor grew more firm and harder. At the end of thirty-six hours the instrument was tightened and left for twelve hours, and when finally removed there was no pulsation whatever, and the tumor was hard and firm.

This patient survived twenty days. Shortly after the operation, secondary hæmorrhage occurred at the seat of the wound, making it necessary to cut down and apply a ligature above and below the point. The accident was perhaps explained by what was found at the post-mortem—namely, a second aneurism the size of a walnut, situated very near the bone, and higher up than the one recognized during life. Both of these sacs were, however, completely filled with clots.

In the case of the axillary aneurism, the Hunterian method was employed, and the ligature was applied in the usual way. The patient progressed favorably for fifteen days, when the ligature came away, and when he was seized with a severe rigor, and died of pyæmia a week afterwards. The centre of the sac contained some syrupy blood; but along its periphery there was a distinct and firm fibrinous deposit, arranged in layers. On the distal side of the sac there was no plug; but this was explained by the presence of branches of considerable size given off in the vicinity.

DR. BUCK then remarked upon the practicability of carrying out the idea of gradual compression by other means than those employed, advocating the finger as the most proper instrument for the purpose. These, by the request of the speaker, are withheld for the present from publication.

DR. POST was of the opinion that the presence of the finger for many hours in the wound would tend to increase rather than diminish the danger of pyæmia, as claimed by the previous speaker.

DR. BUCK replied that that point must be decided by experience.

DR. POST exhibited a small fibro-cellular tumor removed the week before from the posterior part of the upper lip of a woman some fifty or sixty years of age. It was of interest on account of its situation and the material of which it was composed. Dr. W. B. Lewis was kind enough to examine the specimen for him and to decide upon its character.

DR. POST also presented a tumor removed from the lower lip of a patient fifty-one years of age. The duration of the disease was about two years. The tumor extended to the angle of the mouth and a little beyond the median line of the lip. A triangular portion of the lower lip corresponding to the extent of the disease was removed, and the deficiency thereby occasioned was remedied by transplanting a portion of the cheek of the corresponding side, after the method advised by Dr. Buck. An incision was carried up from the lower margin of the upper lip of that side outwards upon the cheek and beyond the angle of the mouth, and was joined by a vertical one extending downwards some little distance below the angle of the mouth. This flap was transplanted in such a way as that the vermilion border of this portion of the upper lip was made to serve the purposes of the same border for the lower lip. A ferrotype of the condition of the parts after the healing of the wounds was exhibited, showing a very gratifying result.

He lastly exhibited a portion of sequestrum removed from the arm of a boy sixteen years of age, who had been attacked with acute osteitis only seven

months before, as the result of exposure to cold and wet. The rapid progress of the disease was the interesting feature of the case.

Dr. Lewis Smith exhibited the heart and lungs taken from an infant who died in the Infants' Hospital, Randall's Island, aged four and a half months. The patient first came under observation about five weeks previous to death, when it was found to be suffering from well-marked manifestations of congenital syphilis. Under appropriate treatment this disease began to disappear, when it was attacked with entero-colitis, and soon after died. At the autopsy there was a slight vascularity of the colon discovered. The lungs were studded with innumerable whitish points, which proved to be gummy tumors. On the left side there was a circumscribed abscess, of the capacity of a hickory-nut, extending up between the two lobes of the lung, and attached posteriorly to the ribs. This was ruptured at the time the organs were removed. As was usual in such cases, no symptoms of lung trouble were noticeable during life.

He also exhibited another specimen, which consisted of a portion of the ribs, upon the interior surfaces of which there was a thick fibrinous exudation, removed from an infant who died on Randall's Island at the age of three and a half years. This child enjoyed good health until its third year, when it was attacked by what was supposed to be pneumonitis. He became convalescent from this, when he was attacked with measles, which left him with a cough and with progressive emaciation. Six months previous to death all the evidences of extensive effusion of liquid in the right pleural cavity were manifest. The circumference of that side of the chest was increased three-quarters of an inch, but there was no bulging of the intercostal spaces. There was complete dulness all over that side, with broncho-vesicular respiration. The right lobe of the liver had become so depressed by the liquid as to arouse at one time the suspicion that the pus had commenced to burrow down in the region of the right hypochondrium.

At the autopsy, on opening the cranial cavity about half an ounce of clear serum was found upon the surface of the brain. This was due to the progressive emaciation. The right side of the chest contained sixteen ounces of pus; the lung was completely carnified, and about one-third the size of the one of the opposite side. No air entered this lung, and yet the respiratory sound was transmitted so distinctly from the opposite side as to give the idea of broncho-vesicular respiration on the affected side.

Dr. Peaslee exhibited an ovarian tumor, containing gelatiniform processes in its interior, for the purpose of demonstrating how they were found from the enlargement of the papillæ of the ovisac. They were in fact nothing but papillomæ, the consistency of which was affected by soaking in the fluid contents of the sac. They were so frequently mistaken for malignant growths that he thought it was time their true nature was better understood.

There being no other specimens, the Society went into executive session.

Stated Meeting, Nov. 24, 1869.

Dr. Lewis A. Sayre, President, in the Chair.

AN UNUSUALLY SLOW EFFECT OF A LARGE DOSE OF OPIUM.

Dr. Finnell exhibited a stomach removed from a man aged thirty, who committed suicide by taking two ounces of laudanum. The organ showed little or no change. The point of interest in the case was that the patient lived full fifteen hours after taking so large a dose of the poison.

FATTY HEART AND DEATH FROM CHLOROFORM.

A second specimen was an abscess of the liver of the capacity of eight ounces, removed from a man who was supposed to have met his death in consequence of the administration of chloroform for an operation for hæmorrhoids. The patient was thirty-seven years of age, and had been suffering from a variety of symptoms referable to intemperate habits. The physician to whom he appealed discovered the existence of piles and advised their removal. The anæsthetic was administered as a preliminary, but when everything was ready for the operation the patient suddenly died. The case became one for the coroner, and Dr. Finnell made the autopsy. The liver, in connection with the condition already described, was found to be far advanced in cirrhosis, the spleen was also the seat of abscesses of a multiple character, and the heart was exceedingly fatty, so much so that a few inhalations of the chloroform would in any event have been sufficient to have destroyed life.

BRONCHOCELE—LATERAL CURVATURE OF SPINE, ETC.

Dr. F. also presented a class of specimens consisting of spinal column, larynx, and trachea, with bronchocele attached, removed from the body of a man aged forty-five. The bronchocele was about the size and shape of the healthy kidney, with its convex surface towards the air tube. On removing the cervical fascia ten or fifteen large veins were found running perpendicularly across the surface of the growth, with a large number of smaller vessels, all of which showed how difficult it would have been to have removed the tumor during life. The spinal column was the seat of lateral and angular curvature. Notwithstanding this latter condition of things, and the size of the bronchocele, the patient during life had been remarkable for strength of voice, being a fine singer.

Dr. Sayre remarked that operation for removal of bronchocele had been so simplified by Dr. Lothar Voss that there did not seem to be any danger whatever connected with it. That gentleman simply tied each vein that was in the way before he divided it, and by such a precaution had transformed a very bloody procedure into an almost bloodless one. In regard to the spinal column, he was of the opinion that the posterior curvature did not exist, but only seemed apparent from the twisting of the bodies of the vertebræ upon themselves. There was no disease whatever in these bones.

Dr. Hutchison asked if Dr. Finnell had any experience in the hypodermic injection of atropine in opium poisoning.

Dr. Finnell answered in the negative, stating that the cases which generally came under his observation belonged to the coroners.

THE TOXIC EFFECTS OF OPIUM INTENSIFIED BY ATROPINE.

Dr. Sands in this connection related the case of a lady upwards of sixty years of age to which he was called in consultation, and in which death resulted from the hypodermic injection of three-quarters of a grain of sulphate of morphine. The physician in attendance, apprehensive that the patient would not bear the opiate well, injected as a precautionary measure a solution of atropine as well. Every effort was made at resuscitation, but to no purpose. Dr. Sands was inclined to believe that in that case at least the atropine, instead of mitigating the effects of the morphine, really intensified them.

(To be continued.)

NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, NOVEMBER 4, 1869.

DR. H. D. BULKLEY, PRESIDENT, in the Cha'r.

CHRONIC METRITIS IN ITS RELATION TO MALIGNANT DISEASE OF THE UTERUS.

DR. KAMMERER opened the discussion of the paper on this subject read by Dr Noeggerath at the last meeting of the Academy. We can give but a brief abstract of his remarks, and must refer our readers to the Bulletin of the Academy, in which a more full report of them will appear.

DR. K. said that he considered the paper of Dr. Noeggerath a valuable contribution towards the solution of a long pending controversy involving the nature and treatment of a fearful malady, which, notwithstanding the forbearance of the patient, and devotion of the medical attendant, is annually destroying thousands of lives, and ever presenting to our minds the question of the cause of its origin and the possibility of its prevention or cure. Carcinoma commences as a proliferation of tissue characterized by its destructive tendency, followed by ulceration, which spreads in proportion as new tissue is involved, by cachexia, prostration, sallow complexion, anæmia, dropsy, hæmorrhage, diarrhœa, and death. Surgery affords but temporary relief, for if the tumor is removed, it is sure to reappear after a time, either in the same or distant tissues; this tendency to relapse being characteristic, and diagnostic concerning the malignancy or non-malignancy of the disease. Pathologists, though laboring faithfully to this end, have not yet been able to inform us definitely from its appearance and structure, whether a certain growth will relapse after its removal or not; though it cannot be denied that much information has been derived through their efforts, and it is hoped that in the course of time their labors may be crowned with success.

He then gave a brief review of the studies and efforts made in this direction, commencing with Laennec, who, in 1829, distinguished between homologous and heterologous tumors, but whose theory was, in 1838, refuted by Müller, who demonstrated that carcinoma contains no other elements than those found in benign tumors. The next theory was that of Lebert and Hannover, who claimed that the characteristics of malignant disease were found in the peculiar form of the cells. But this theory was also refuted by the description, in 1845 and '6, of malignant tumors which relapsed after extirpation, and in which none of these peculiar cells were found.

He next gave a brief outline of the views expressed by different pathologists on metritis, and especially chronic metritis, all regarding it as not uncommon in the puerperal uterus, but as exceptional in the non-puerperal uterus; the majority still holding to the old view, that when there is enlargement of the organ, increased sensitiveness and congestion of the mucous membrane, then there is inflammation; acute, if attended by fever, chronic, if fever is absent. Of these, only one can be regarded as a cardinal symptom, viz.: enlargement; for tenderness is found in nearly all displacements of the organ, as well as in hysteria, perimetritis, &c., while congestion of the mucous membrane indicates nothing whatever but catarrh or endometritis. His own views are, that acute parenchymatous metritis is an exceptional condition outside the puerperal state. When it terminates favorably, hypertrophy of the uterus from increase of connective tissue is the result. Chronic inflammation of the substance of the non-puerperal uterus is never met with; what has been described as such is hypertrophy of connective tissue resulting from long-continued hyperæmia. He believes that the far greater portion of uterine affections originates in catarrh or displacement. Most cases of carcinoma are far advanced in their development when first seen by the practitioner, and have not had the advantages of early treatment, neither do they furnish any reliable evidence concerning their early history. He related two cases in which he amputated the vaginal portion several years ago, in neither of which has there been any return of the disease, though in one there was not much reduction in the size of the organ. In this case he believes the hypertrophy to be the result of hyperæmia from displacement. He said that he had never seen carcinoma, in any patient that he had had within ten or twelve years, successfully treated for uterine catarrh, and insisted on the importance of early attention to this disease as a means of arresting the development of further mischief.

DR. BARKER repeated what he said at the last meeting, that he considered chronic inflammation of the uterus as resembling chronic inflammation of other tissues of the same histological character; and were it not that the uterus is subject to periodical congestions, chronic metritis might terminate in resolution, the same as chronic inflammation of other tissues. It seemed to him a new law that malignant disease of the uterus should follow inflammation of that organ, and the same result should not follow inflammation of other organs. He considered the detail of cases by Dr. Noeggerath valuable, though too limited to establish a law.

DR. WEBER related two cases bearing on the clinical history of this subject; and remarked that on the question of the possible occurrence of true metritis outside of the puerperal state—which had been much dwelt upon in Dr. N.'s paper—he should answer in the affirmative from the standpoint of general pathology. Inflammation, as now understood, is that kind of alteration of nutrition of parts which is characterized by an increased supply of nutritive material, accompanied by an increased retrogressive metamorphosis. The *co-existence* of both processes, increased supply of nutritive material, and increased retrogressive metamorphosis, is the essential feature of inflammation. It is true that until recently, inflammation has been defined as hyperæmia with exudation; but it is now demonstrated that exudation is by no means a necessary concomitant of inflammation, and that hyperæmia is but a secondary phenomenon of inflammation. There is nothing, Dr. W. remarked, in the anatomy and physiology of the uterus that could justify us in placing it outside of the laws of general pathology with regard to inflammation of its substance; and it must be conceded that true metritis can occur in the previously sound as well as in the puerperal uterus. Dr. W. thought that the cases so carefully recorded by Dr. Noeggerath in his valuable paper will be of great value for future observers in this field of study.

DR. NOEGGERATH said that he could not retract a single phrase of what he said at the last meeting. He had clearly defined what he understood by the term chronic metritis. He had called it a diffuse parenchymatous metritis, occurring only during the puerperal state—with very rare exceptions—and which consists of growth of cellular tissue both of the body and neck, and has a strong tendency to be transformed into cancroid; he had carefully avoided the word cancer. This is the disease which he has chosen to call chronic metritis, and if other gentlemen choose to call something else chronic metritis, he had no objections.

DR. PEASLEE said that the fact of hypertrophy proved to his mind the fact of congestion, otherwise we have

no right to the term congestion. He prefers to call the disease under consideration congestion rather than inflammation, because it has none of the events of inflammation. Acute inflammation destroys connective tissue, while this disease increases it. He therefore thought it just as logical to call the healing of an acute ulcer, by the production of new tissue, chronic ulceration, as to call this disease chronic inflammation.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

STATED REUNION, OCTOBER 22, 1869.

DR. ISAAC E. TAYLOR, PRESIDENT, in the Chair.

COLLAPSE OR NON-COLLAPSE OF LUNG IN WOUNDS OF CHEST.

DR. A. H. SMITH read a paper upon this subject, which we published in our last number. He illustrated his remarks by an apparatus (described in the paper), imitating some of the mechanical conditions involved.

DR. B. HOWARD thought the highest credit due to Prof. Smith for his ingenious experiments; but he questioned how far the apparatus represented the actual conditions in wounds of the chest. The most astonishing point brought out was that with a large opening in the chest-wall, expansion of the lung of the wounded side occurred during expiration, and contraction of the lung during inspiration. This was clearly shown in the bellows apparatus, and was of theoretical interest; but in practice, you would almost never see a wound of the chest, whether incised or gunshot, having anything like the relative size, as compared with the whole chest, which the fully open slit in the bellows-wall had as compared with its whole surface. Practically, nearly all such wounds had about the relative size represented by the smallest opening exhibited by the Doctor; and under these conditions it had been shown that with inspiration the lung slightly expanded, and with expiration it slightly contracted. Again, the Doctor's experiments and illustrations were confined to cases in which the chest-wall alone was wounded; but you could almost never be sure in penetrating wounds of the chest that the lung itself was not also penetrated.

During the late war, especially towards its close, the speaker had been enabled to devote himself almost exclusively to the observation and treatment of gunshot wounds of the chest and abdomen. In the engagements of the Wilderness and those subsequent, he had kept close to the front, visiting all the field-hospitals; so that, speaking within bounds, he could say that he had seen several hundred such cases. But notwithstanding this large experience, he was sorry to say that he had been able to learn little of value concerning this point of lung-collapse. Almost never had he been able to inspect the lung through a gunshot wound. Yet, if the Doctor's theory were to be accepted, we should often see hernia of the lung, whereas this was one of the rarest accidents. He had never met with it, though he had expected often to do so. Guthrie saw three cases after the battle of Waterloo, but none subsequently. Hamilton saw one case where the lung protruded more than an inch, but through a very small opening. When hernia did occur, it might be accounted for by supposing that at the moment the wound is received there occurs a sudden contraction of the chest-wall, with a simultaneous closure of the glottis; the imprisoned air forcing a part of the lung out through the wound, and inflating it still further after its protrusion, so as to prevent its return.

Feeling very much in the dark with regard to the actual condition of the lung when the chest-walls were wounded, Dr. Howard had instituted some experiments to determine the question, though they were of necessity more roughly conducted than Dr. Smith's, from being in front of the enemy. He had produced gunshot wounds in some twelve or fourteen horses, and in dogs almost innumerable. The intolerance of these wounds by the lower animals was surprising. The dogs, especially, never lived long enough to allow extended observations. He had not felt at liberty to torment patients by introducing the finger into the chest-wounds so as to ascertain by touch the condition of the lung.

In gunshot wounds, as we find them, there was not often complete collapse of the lung at first; and the speaker was very glad to say this, since it so fully substantiated the theories of treatment he had been wont to advance. (He would prefer to discard the term "collapse," substituting "compression," as applicable alike to a greater or less diminution of volume.) The lung in such cases was actually in a condition of greater or less compression, and almost inactive. Though not flattened against the spine, it remained in equilibrio, between the pressure within its own limits and that within the pleural sac, almost as motionless as if hepatized. This condition of stasis was as accordant with reason as with observation.

A point worthy of note was, that when in chest-wounds there was free hæmorrhage, the overflow of blood from the wound did not take place during expiration, but commonly at the moment of deepest inspiration, especially if the wound were seated high up.

What Dr. Smith had said of treatment coincided precisely with the speaker's own views. Every wound of the chest, whether gunshot or incised, attended with dyspnœa manifestly due chiefly to the presence of air in the pleural cavity, should be closed at once and completely; and in closing it the chance of union by first intention should be taken into account, and the effort made to facilitate such permanent closure. Even though there were liquid in the pleural sacs—and in all his many post-mortems the speaker had found either blood or serum, more commonly both—still the wound should be closed, so long as not this liquid but the air in the sac seemed to be the prominent cause of the dyspnœa. Should the liquid continue to accumulate so as to become the chief obstruction to respiration, then the wound could be reopened if favorably situated for drainage; otherwise, a new opening should be made at the most dependent point, so as to secure drainage with the least admission of air.

Where, in cases attended with severe hæmorrhage, death seemed imminent, not from dyspnœa but from loss of blood, should you close the wound or not? True, if you put your hand over the hole and stopped it up, the blood might keep on flowing into the chest; but you had the satisfaction of knowing that there was a limit to this in the capacity of the pleural sac, and that when that was full you would have an elastic clot to press against the bleeding point; while if you did not stop up the hole, there was nothing to hinder the flow from continuing till the patient should fall into collapse.

DR. WHITEHEAD had seen a great many gunshot wounds of the chest. He had not given special attention to the matter of collapse or "compression," but he did not recollect having seen it, while he had often observed the condition of immobility or "stasis" (as Dr. Howard termed it). He would speak of a practical point in the treatment. During the Crimean war he had, ranged in a row in one of his wards, eleven cases of gunshot wound of the chest. He had followed the custom of the Russian surgeons and bled the patients

when dyspnœa became threatening—a custom handed down from the practice of Dupuytren, who employed this treatment after gunshot wounds and incised wounds with the small sword. He was confident that every one of these cases was much benefited by it. They had passed from under his observation after twelve or fourteen days, but at that time were all doing well. He had seen the same results in the practice of his colleagues at Sebastopol, the intense dyspnœa being at once relieved by the sudden abstraction of a not large amount of blood, often from both arms. This was sometimes repeated four or five times during the treatment. During the late civil war in this country, he had the opportunity of treating a much greater number of cases of the kind, in the Confederate army; but he had not the moral courage to follow out the treatment that had proved so successful at Sebastopol. He had not once seen it used in the Confederate service; and would ask Dr. Howard whether he had employed it or seen it employed among the Union forces.

Dr. Howard, misapprehending Dr. Whitehead's question, spoke of the unwarrantableness of venesection as a derivative, to check hæmorrhage from the chest-wound.

Dr. Weber explained, and said that no matter upon whose authority it rested, it was sound and rational practice to bleed from the arm for the relief of dyspnœa dependent on pulmonary œdema, or on sudden congestion. The cases referred to by Dr. Whitehead were doubtless those of rapid collateral flux to the sound lung, from the extra work forced upon it, producing great congestion and leading to œdema, with, of course, intense dyspnœa—the wound probably furnishing no great drain. This condition would be certainly relieved by taking half a pound of blood from the arm—a procedure that might often become the surgeon's imperative duty, in order to save the patient's life. In pneumonia we might have acute œdema of the sound lung, from collateral flux, and have to bleed—in spite of the pneumonia, not because of it, as taught twenty years ago. Just so after a gunshot wound of the chest. Of course, if the patient were entirely anæmic, had bled himself nearly to death, no such necessity for venesection would exist; the dyspnœa would depend upon some other cause than acute œdema of the sound lung.

Dr. Whitehead said that Dr. Weber had correctly understood him.

Dr. Howard recognized the propriety of the treatment under the conditions named, in sthenic cases.

Dr. Post, referring to the fact that syncope is one of nature's means of arresting hæmorrhage, by diminishing the force of the current so as to allow coagulation, said it was this which had suggested venesection for the relief of hæmorrhage—it acted by producing more speedy syncope. But there was another mode of inducing syncope, which afforded the advantages of venesection without its evils. By swiftly bandaging the limbs, near the trunk, so tightly as to prevent the venous return, several pounds of blood might be shut off from the brain; and if the resulting syncope became alarming, the blood could be let in again in quantities to suit. This method, which he had tested in practice, he deemed extremely valuable.

Dr. J. E. Taylor attested its value in uterine hæmorrhage, including that of placenta prævia.

Dr. Howard had been greatly surprised to find so few cases of gunshot wound of the chest die from hemorrhage. He had expected that perhaps the larger number of the sudden deaths would be due to this cause; but, although he had kept as close to the front as possible, he had seen in all but three or four such. In almost all the cases where death seemed instantly threatening, it was from dyspnœa; and it was this fact which had led him specially to study the means of relieving the respiratory oppression. At Antietam he had been struck by the ghastliness of a poor fellow, like that of a child with croup. Asking him what was the matter, the man showed a wound in his chest, and removed the plug of lint, when there was at once an audible whistle. The Doctor instinctively placed his hand over the wound, and almost immediately the patient was relieved, and in two minutes he was breathing quite freely.

Dr. Smith asked Dr. Howard whether he had closed the wound at the moment of expiration or of inspiration. He thought it would make considerable difference in the patient's breathing afterwards.

Dr. Howard thought it was at the moment of deepest inspiration. But he deemed this point of the less consequence, because the lung itself was so apt to be wounded.

Stated Re-union, October 29, 1869.

Dr. Isaac E. Taylor, President, in the Chair.

Dr. Neftel gave the introductory lecture of the series, which we are now publishing, upon *The Galvanic Current in its Relation to Physiology, Medicine, and Surgery.*

ADDISON'S DISEASE.

Dr. Rockwell presented a patient whose case he had diagnosticated as one of Addison's disease. The affection had begun two years before, when the man had suffered from excessive exhaustion for a number of months; he had then improved a little; and, a year ago, had again become prostrated. The symptoms were a feeling of utter exhaustion, a diminution of nearly all the secretions; the throat was dry, the stools were dry and hard, the nails were brittle; impotence, and paralysis of the arms. Under treatment by general faradization, nearly all these symptoms had disappeared.

WAS IT PROSTATIC STRICTURE?

Dr. Stein referred to a case reported by Dr. Neftel as one of prostatic stricture. As the existence of true organic stricture in the prostatic urethra was denied by the best authorities, he questioned whether the case might not have been one of prostatic disease simulating stricture, especially as the Doctor had said there was some enlargement of the prostate.

Dr. Neftel could not be certain of the seat of the stricture, as it had yielded to the electrolytic treatment and given no opportunity for a post-mortem examination. It had for eight years resisted every attempt to pass a catheter, and at times the patient had been unable to pass his urine.

Dr. Post said that the enlargement of the middle lobe of the prostate often prevented micturition, and rendered it very difficult to pass any instrument into the bladder. In such cases a very large instrument would pass with greater ease than a small one, while in true stricture the reverse was the case; and this was the experimentum crucis in the differential diagnosis. Moreover, in stricture, if a large instrument could be passed, the urine could afterwards be voided with ease; but if the obstacle lay in the middle lobe of the prostate, the passage of the sound did no good. It was generally admitted that stricture of the prostatic portion of the urethra either did not occur at all, or was extremely rare; but he thought that he had met with one case in his own practice.

Dr. Weir referred to Sir Henry Thompson's statement that there was not a single example of true prostatic stricture in any of the museums of London, Edinburgh, or Paris. He thought the obstruction in Dr.

Neftel's case doubtless lay just anterior to the prostatic portion.

THE LIBRARIAN acknowledged the receipt of photographs and engravings from Dr. Noyes, and from Dr. Boeck, of Norway.

Correspondence.

MEDICAL STAFF RANK.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—Several articles have lately appeared in the Medical press, severely condemnatory of the verdict rendered by a naval court-martial in the case of a Passed Assistant Surgeon, tried for disobedience of orders, and "heartily endorsing the conduct" of the medical officer.

The court was probably composed, as is usual in the navy, of one officer of the same grade as the accused, and the balance, of both line and staff. Although the order given by the captain, to take a man's name from the sick list, was a very unusual one, and perhaps an unnecessary one, I cannot understand how, if the disobedience was proven, any other verdict than that of guilty could have been rendered; or how an officer, long enough in the service to have become a Passed Assistant Surgeon, could have supposed that military law would uphold him in refusing obedience to a positive order of his commanding officer.

The captain of a vessel of war is necessarily superior in rank to every other officer on board, since he alone is held responsible for the discipline and efficiency of his ship. The heads of the several departments, staff and line alike, are subject to his order, and all the details of ship duty are reported to him, and subject to his approval. And necessarily so; for without this supervisory power of the captain, the navigating officer could direct the vessel's course according to his own caprice; the engineer might exercise his own discretion in laying in supplies of coal, and in getting up steam; the paymaster might refuse to issue rations or pay from the beginning to the end of a cruise; and the surgeon might cripple the ship in storm or in battle, by placing a dozen or so of the most important petty officers and seamen on the sick list. Make any department of the vessel independent of the captain's control, and our navy would become famous for inefficiency and lack of discipline, and the splendid results of the war would never have been achieved. It is only by subordinating each department to the will of the commanding officer, and making him strictly accountable to the government for his action, that the comfort, and safety, and harmony of officers and men on a long cruise, can be secured.

True, the captain may abuse his power, and issue unusual and censurable orders, but the remedy is not in refusing obedience, but in executing the order, and then preferring charges. Repeatedly, during the late war, commanders of vessels were tried and convicted for transcending the authority delegated to them; the charges, in some cases, being preferred by their subordinates.

Shall we claim, for the medical corps, a supremacy not enjoyed by the other departments? The opinions of surgeons are usually respected by commanding officers, and they have seldom to complain of interference from the line. In an experience of several years of naval life, I never heard of a surgeon being ordered to take a man from the sick list; but I can understand that such an order might become necessary, as when every man was needed to serve the guns, to furl sail, or man the pumps. The majority of men on a vessel's sick list are usually able, at a pinch, to do some duty, and there can be no more doubt of a captain's right to order the list cleared, and the men sent to duty, than of his right to refuse to approve and forward the doctor's requisitions for medical stores, or of his right to place him under arrest for misconduct, or to relieve him entirely from duty, thus abrogating, pro tempore, the medical department of the ship.

As to rank and pay, the medical corps of the navy has much to complain of, and a just claim upon the profession for the exercise of all its influence in its behalf. By creating new grades, and authorizing increased compensation, Congress has advanced the line, until the relative standing of line and staff is so disgracefully disproportionate as to have excited comment and ridicule among foreign nations. There are medical officers in our navy to-day, who served faithfully as such during nearly all the war, still receiving the niggardly salaries of Passed Assistants—$1,500 per year; while officers of the line, who ranked below them on original entry into the service, and who, in many cases, are a half score of years their juniors, now hold the rank of Lieutenant-Commanders, on salaries of $2,343 per year. Surgeons who entered the service twenty years ago, educated at their own expense, who have seen ten and twelve years of sea service, are still receiving as their highest pay $2,400, with no chance of promotion above the rank of Captain; while line officers, received into the Naval Academy at the same time, boys from fourteen to eighteen, to be educated at government expense, are enjoying equal rank, and higher salaries by four hundred dollars per annum, with the prospect of the honors and emoluments of Commodores, and the different grades of Admiral in riper years.

The reasons for this difference are to be found, I think, not in a lack of appreciation of the important services rendered by medical men, or in "that bitterness of hate which the line bears towards the staff;" but in the fact that the line of the navy constitutes a body of vast political influence. Every lad sent to the Naval Academy, is the son, nephew, or protégé of some Congressman, or of some man who has friends at court. His appointment is conferred as a political favor, and the same influence that gives him his position, avails to secure for him other privileges. With the medical corps it is not so. Political men and political favors are unknown to this department of the staff. Any young medical man, of the required age, however poor and obscure, may obtain permission to appear before the examining board. If the report is favorable, he receives a commission; if unfavorable, no influence will avail to give him one. Being, then, a far less numerous body than the line, and almost entirely destitute of political strength, the surgeons of the navy have been unable, thus far, though their efforts have been united and persistent, to get the attention of Congress long enough to demonstrate that they are poorer in rank and pay than any other corps of our military or naval service; poorer than the average of members of any county medical society in the country; so poor, that the government ought to be ashamed of the petty sum it is paying to men who have served the country faithfully and heroically through years of tedious blockade and storm, and pestilence and war.

Repeatedly disappointed in their own efforts to secure legislation in their behalf, the medical corps ask the co-operation of the profession at large. An attempt, initiated by the Kings County Medical Society, is being made to secure the name of every physician in

the State to a petition to Congress in behalf of our brethren of the navy. The profession in all the other States should adopt a similar course, and every representative in Congress should be made to see the justice and necessity of giving to naval surgeons the rank and pay for which they have so long waited—for which they have so often petitioned, and which are not withheld by any other great maritime power.

If the profession of the country will do this for the naval surgeon, it will confer a greater benefit than by lending its endorsement to acts of insubordination plainly in violation of his oath of office.

A FORMER PASSED ASSISTANT.

SYRACUSE, N. Y., Nov. 15, 1869.

Medical Items and News.

THE NEW CATHOLIC FEMALE ORPHAN ASYLUM, BROOKLYN, N. Y.—This new structure, the corner-stone of which was laid in April last, located corner Willoughby and Yates avenue, is progressing favorably towards completion. It is after the modern French order of architecture; materials of brick trimmed with Ohio and Belleville stone. The basement is of stone. The front on Willoughby avenue is 200 feet; at either end extend two wings 85 feet deep; in the centre of the quadrangle will be a handsome Gothic chapel, 50 by 85 feet in size. It is intended that the new asylum will amply accommodate 200 children. The cost is not to exceed $130,000, and when finished, which will be, it is desired, this year, is to be placed under the charge of the Sisters of Charity, now at St. Paul's Church, Court street.

THE CENTRAL OHIO LUNATIC ASYLUM, destroyed by fire some months ago, will be rebuilt and probably completed in 1872.

THE CHINESE FOOT.—An English surgeon, resident in China, gives the following account of the means adopted to ensure small feet among the women of that country: The Chinese commence to produce the deformity about the age of six or seven years. The feet are carefully bandaged every day, and bandages are alone used. At night the compression is removed, and sleeping shoes without soles, which prevent the feet expanding, are put on. The pressure is so intense that sometimes sores are produced; but the bandages are still applied as before, only that alum is used at night. It is said that the actual pain is not great, nor are the general results upon the constitution bad. The "correct" size is about four inches, and this can only be obtained by the early commencement of the cramping process and assiduous compression. The bandages are applied so that the second, third, and fourth, and particularly the little toe, are bent round and under the foot, so as to secure the least possible breadth in the latter. The heel, by what surgeons know as a figure-of-8 bandage, is approximated to the ball of the great toe, and does not form an angle with the bones of the leg, but is made to fall into the same line, and becomes apparently a continuation of them. The bones of the instep are thrust forward at the front of the foot, and bulge out, as it were, giving rise to a crescentic elevation, resembling, it is imagined, the new moon. The foot consequently rests on what is really the back part of the heel, the ball of the great toe, and the fourth and fifth toes. Of course the leg shrinks; there is no calf, because the muscles are not exercised, and there is no bending of the knee or ankle joints. The gait, adds Dr. Dudgeon, is mincing, the arms swinging from side to side, and the body is never straight or steady. The women walk or stand on their heels; and yet, from the nature of the shoes, with the heel one or two inches higher than the toes, they may be said to walk mainly on their toes. It is impossible not to recognise some resemblance between the gait of the Chinese lady, and the Grecian bend of the girl of the period in our own country. The evil results, indeed, which follow the raised heel, and the throwing forward of the body, are similar in the two cases, as far as the pelvis and spine are concerned.—*Lancet.*

A MUNIFICENT GIFT.—Josiah Mason, a manufacturer of Birmingham, England, has just delivered to the trustees the property and endowments of his almshouses and orphanage at Erdington. The amount of money expended is £260,000, or about $1,250,000.

THE MONTPELLIER PHARMACIE.—Madame Deumergue, Bachelor in Science, has recently opened, at Montpellier, a *pharmacie*, which is the first establishment of the kind in France under the administration of a lady.

TREATMENT OF BURNS IN THE BOSTON CITY HOSPITAL.—Dr. George Derby, Boston, Mass. (*Boston Medical and Surgical Journal*), has successfully treated, in the Boston City Hospital, burns with dry earth.

THE GENERAL LYING-IN HOSPITAL IN VIENNA.—In this Lying-in Hospital, for the year 1867, there were 8,163 confinements in the different departments. The total mortality among the women was 94, or 1·1 per cent.

THE WEATHER AT HALIFAX, N. S., IN 1867.—We learn from Frederick Allison's paper, styled "Notes on the Weather at Halifax, N. S., during the year 1867," *published in the Transactions of the Nova-Scotian Institute of Natural Sciences*, the following particulars in regard to that climate: Rain or snow fell on 222 days. The mean temperature of the year was 41°·98, being ·89 below 1866. The thermometer marked from 88° on the 10th of August, down to 9°·3 below zero on 30th and 31st January—a range of 97° 3.

There were 87 days' sleighing in the year. Hoar frost formed on 32 mornings. The aurora borealis was visible on 32 nights. That of the night of the 8th February was a beautiful sight. On 183 days the Nova-Scotians in Halifax had frost. The longest period that it was absent was from 11th June to 12th September; the earliest, viz: from 12th, 15th, and 24th September and 1st October, read from ground thermometer.

THE REQUIREMENTS OF A LONDON MEDICAL STUDENT AND PRACTITIONER.—Before the London student is ready to practice he is required to show a higher standard of preliminary education, a much longer course of study, than with us. Clinical teaching is now strictly enforced, and in every way more money must be expended before the student is ready to practise than in America. When the course is completed, and diploma obtained, either from the Royal College of Surgeons of London, Dublin, or Edinburgh, without which he cannot be "registered," he must wait about ten years before he can obtain a supporting practice. It pays well when the practice is obtained. The fee of a London physician of any note is not less than one guinea; and two guineas is not considered exorbitant when he is well established.

THE LATE MEETING OF THE BRITISH MEDICAL ASSOCIATION.—The visitors to the late meeting of the British Medical Association, held at Leeds, numbered about 250, and included such names as Sir W. Jenner, Sir

J. Y. Simpson, Dr. Acland, Dr. Druitt, Dr. W. Farr, Dr. Arthur Farr, Captain Galton, C. B. M. Jonathan Hutchinson, Drs. Richardson, Heslop, Lingen, Brown-Séquard, Tilt, and many other eminent men from the United Kingdom.

Something in Regard to Dr. Charles West, the Children's Friend.—The London correspondent of the *Cincinnati Lancet and Observer* called upon the eminent author and teacher, Charles West, M.D., F.R.C.S., and found him exceedingly social and agreeable, and in splendid health, though quite old. He does but little beyond consultation practice. He is now connected with only one hospital, which he founded, in Queen's Square, for sick children, and calls it *his child.* Dr. West does not pretend to lecture.

Well-Paid Doctors.—*Seleucus*, for having his son Antiochus restored to health, was munificent enough to give sixty thousand crowns to *Erasistratus;* and for their attendance upon the Emperor Augustus, and his next successors, no less than four physicians received annual pensions of two hundred and fifty thousand sesterces apiece.—*Jeaffreson's Book about Doctors.*

Iron Stoves as Poisonous Agents.—Dr. Pidtmann (*Virchow's Archives*) does not hesitate to assume that chronic poisoning by carbonic acid is comparatively frequent in his part of the country, which is rich in iron stoves.

Headache and Epistaxis among School-Children.—Guillaume, in his researches on the "Affections of Children," believes that the school favors, and often causes, headache and bleeding from the nose. Epistaxis in schools is frequent in 21 p. c.; more frequent in boys (22 p. c.) than in girls (20 p. c.).

Opium Eaters.—Dr. C. K. Ladd, of Towanda, Penn. (*Trans. Penn. Med. Society*), reports the case of a man who had taken opium for upwards of fifty years, and during the last years of his life consumed 3 iij each day.

Dr. H. M. Moody also states that a similar case came under his observation. The man died at the advanced age of eighty years. The two last weeks of his life he ate four ounces of the best article of opium; the last few years of his life his ordinary dose, several times a day, was a piece as large as an ordinary nut-gall.

Remarkable Case of Longevity.—A Rhode Island paper states that there is now living in the town of Smithfield, in that State, a man and his wife, Jonathan and Saloma Buxton, he being 102 years old and his wife 101, both enjoying perfect health, and able to attend to the duties and management of quite a large farm. They have now living nine children, the eldest 76 years of age, and all enjoying a remarkably youthful appearance. The old gentleman and his wife have enjoyed an unclouded matrimonial life of seventy-eight years, he never having had to call the services of a physician since his remembrance. His father, being one of the early emigrants from England, named the town Smithfield, and the street Buxton street, after the place he left in England.

The Oldest Relic of Humanity.—The oldest relic of humanity extant is the skeleton of one of the earlier Pharaohs, encased in its original burial robes, and wonderfully perfect considering its age, which was deposited about eighteen or twenty months ago in the British Museum, and is justly considered the most valuable of its archæological treasures. The lid of the coffin which contained the royal mummy was inscribed with the name of its occupant, Pharaoh Mikerinus, who succeeded the heir of the builder of the Great Pyramid, about ten centuries before Christ. The monarch whose crumbling bones and leathery integuments are now exciting the wonder-gazers in London, reigned in Egypt before Solomon was born, and only about eleven centuries or so after Mizraim, the grandson of father Noah, and the first of the Pharaohs, had been gathered to his fathers. The tidemark of the deluge would scarcely have been obliterated when this man of the early world lived, moved, and had his being.

Difference of Time between the Beat of the Heart and the Pulse at the Wrist.—Dr. Gronx, the man without a sternum (*Med. Investigator*), by the aid of a delicate instrument called the *Chronograph*, has ascertained that there is a perceptible difference in time between the beat of the heart and the pulse at the wrist, the time occupied being 235,000 of a second. This fact furnishes data that may be of great value in detecting aneurisms in some of the large arteries.

Ether-Spray in Chorea.—M. Mazode, of Lyons, cures chorea by the application of Ether-spray to the spine. In one case 50 grammes (14 drachms) of ether were applied in spray, along the whole length of the spine, with a Richardson's apparatus.

Removal of a Tape-Worm.—Dr. G. M. Nippert, of New Brighton, Pa. (*Ohio Med. and Surg. Reporter*), reports the removal of a tape-worm, 22½ feet in length, from one of his patients, by the use of pumpkin seed tea.

Tetanus Treated by Aconite.—In the *Bulletin de la Therapeutique*, Wunderlich publishes two cases of recovery from tetanus under the use of aconite.

Price of Milk in China.—The inhabitants of Hong Kong are paying seven English shillings for a gallon of milk. Already the Californians are exporting good cows to that section of the world.

New Publications.

Books Received.

Moral, Intellectual, and Physical Culture; or, the Philosophy of True Living. By Prof. F. G. Welch, Instructor in the Department of Physical Culture, in Yale College. New York: Wood & Holbrook. 1869.

Manual of Hypodermic Medication. By Roberts Bartholow, A.M., M.D., Prof. Materia Medica and Therapeutics in Medical College of Ohio, etc. Philadelphia: J. B. Lippincott & Co. 1869.

The Wasting Diseases of Infants and Children. By Eustace Smith, M.D., London. Philadelphia: H. C. Lea. 1870.

Transactions of the American Medical Association. Vol. XX. 1869.

Physicians' Hand-Book of Practice for 1870. By William Elmer, M.D., and A. D. Elmer. Townsend & Adams. 1870.

Errata.—In Report of County Society, in our last number, p. 448, at the close of first paragraph, read "I *avow* myself grateful" instead of "I *am* myself grateful"; 5th paragraph, read "*professorial* chair" instead of "*professional* chair"; 8th paragraph, read "*that* personal experience," instead of "*the* personal experience," etc.; same paragraph, read "*than* monumental brass" instead of "*than the* monumental brass"; page 449, 2d column, 4th paragraph, transpose "and obtaining a substance, *apomorphine*," to read "*apomorphine*, and obtaining a substance."

Original Communications.

EXTRACTS FROM VIRCHOW'S LECTURE ON SARCOMA.

TRANSLATED

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The term *Sarcoma* (fleischgeswulste, tumores carnei, sive carnosi) has been employed from the earliest periods, but up to the present day the territory which it represents has been by no means well defined; though the term itself has found a general recognition. Galen says, "we speak of the unnatural growths in the nasal passages as *sarcoma*," and he says explicitly that "we also include polypi in this category." In general, this conception obtained until more recent times, though until towards the end of the last century the name was but little used. In medical writings we read only of sarcoma of the uterus, in the sense of fleshy or polypous outgrowths. Among the surgeons, here and there, there prevailed, even earlier, another impression, since they so named certain deep-seated tumors belonging to true flesh and neighboring parts. They intended thereby, as a rule, certain soft, painless, round, *full-tumors*, formed by interweaving of fibrous structures, covered over by integument, with few blood-vessels, and generally of an innocent nature (Astruc, 1791). They allowed (supposed) them occasionally to inflame, to suppurate, to pass over into scirrhus or cancer. This, however, aided but little; and if we examine what they called sarcoma, there can be no doubt but that fibroma, lipoma, chondroma, and all other tumors possible, were thrown together with true cancer and sarcoma. The great majority of surgeons (Grashius, 1741), at any rate, continued to consider fungi and sarcoma as identical. But in dermatology, sarcoma obtained even a more extended territory; at least Lorry (1779) pointed out as sarcoma certain "formless fleshy masses" which arise partly from soft tumors, through irritation, and partly were inherent at birth, yet did not appear to grow till later.

Still later, the term was even further extended, and we can truly say, that at the beginning of the present century almost everything which had not a cystic structure, was not very hard, and was not characterized by a special disposition to ulceration and painfulness, in brief, what was not termed encysted tumor, steatoma, exostosis, or cancer, was considered in the category of sarcoma. Especially was the influence of Abernethy (1809) here felt, who proposed an entire family of tumors with this name, and under these again to form a number of species. Accordingly he pointed out the ordinary organized sarcoma, the fatty sarcoma, the pancreatic sarcoma, the cutaneous sarcoma, the mammary sarcoma, the tubercular, the medullary, and carcinomatous; also, with exceptions, the bony and vascular tumors, and pretty much all the pseudo-plasmata, except the encysted tumors proper. The most of these names, it is true, were never taken up in medical language; but there remained the simple sarcoma, the cystosarcoma, and the medullary sarcoma, to which were added the gelatinous sarcoma and the osteosarcoma. It was overlooked, for the most part, that Abernethy had used the name sarcoma in a very general sense, and wished the different species brought forward by him to be considered as forms of the same fundamental type. A single fundamental view was indeed a logical desideratum, and it appeared therefore a truly progressive step when, through the labors of Hey, Wardrop, Laennec, and others, the *medullary sarcoma*, under the name of fungus hæmatodes, and medullary fungus, or encephaloid, was entirely removed.

But through this separation—though without the author's intending it—the medullary sarcoma approached so near the carcinomatous sarcoma of Abernethy—the true cancer—that very soon medullary sarcoma and medullary carcinoma became synonymous. The relation of fungi and sarcoma to scirrhus and carcinoma, previously shown by Grashius, found a still larger number of supporters; and especially in Germany, through the authority of Jno. Fr. Meckel (1823) and Philip von Walther, the question was for a long time decided in the sense of the identity of blood fungus, medullary fungus, and melanosis. What then was left for sarcoma? Many ophthalmic surgeons (1830–43) retained the expression for all kinds of warty and granular outgrowths (carunculæ) of the cornea and conjunctiva, as pannus carnosus, without attaching a clear anatomical notion. Later, Walther decided, in short, to consider as sarcoma every increase of volume of an organ originating through hypertrophy, without alteration of form or complexity, and extended this acceptation to ordinary hyperplasia of the tonsils and parotids, to bronchocele, and enlargement of the liver. Stromeyer included under it (sarcoma), tumors which were formed out of a cell material rich in vessels and similar in its structure to the granulations of newly formed flesh; and he included therein not only fibroid and cystosarcoma, but also true melanosis, while he excluded most decidedly simple hypertrophy and medullary fungus. Thus there arose, finally, a confusion of language, in consequence of which a correct understanding appeared almost impossible, and in consequence of which, also, every one used the same arbitrary name for the most different growths.

But this arbitrary course received a check (rückschlag) when minute anatomy and histology became the basis of reasoning with regard to tumors. It was thought there remained nothing else than to throw off entirely a name so much misused and so uncertain, and to indicate in another way all the different species of tumor which had been classed under it. I had myself nothing to object against such a plan; I even shared the opinion that it was necessary not only to separate the proper carcinoma, but also the fibroma, lipoma, chondroma, &c., as far as possible. I had also, through the establishment of the myxoma, osteochondroma, glioma, &c., already very considerably diminished the territory of the sarcoma. But I find it necessary, even after this sifting, to retain the term sarcoma, because a real necessity exists of reserving a different name for certain tumors belonging to the connective tissue series, for which we can easily lay down a common type of histological development, but for which we are not in position, especially among the normal tissues of the body, to find so close an analogue as we have met in the case of the growths previously considered.

If we go over singly all the different sorts of tumors of which we have already spoken as connective tissue tumors, it will appear that each one of them was the starting-point of a further development—in some measure a transition form—towards something else which harmonizes entirely with the principal tissue as to general type, though in detail it is still different. This has been called, for some time back, degeneration; but I have described it more accurately as a tendency (capacity) to transformation of one tumor into another

(transformation, metaplasie). It may be that there is such a transformation in kind among the tumors of the connective tissue series, that the peculiarity of one or another tissue, which is partly determined by the condition of the intercellular substance, partly by the condition of the cell element, takes on an essential deviation, in that the cells undergo a still further development, either by a material increase of size, or a material increase in numbers. The more completely such a further development takes place of fibroma, myxoma, chondroma, osteoma, melanoma, glioma, towards tumors characterized by many cells or by large cells, and the more the earlier character disappears at the same time, and in a certain manner, in the idea of Bruns, a cellular tumor (tumor cellulosus) arises, of which, however, *the cells continue to retain the common type of the mother tissue whence they were developed*, the more do I consider myself justified in calling such a tumor *sarcoma*. Should the cells, however, assume a different character, take on a heteroplastic development,—if, for example, they should approximate epithelial cells,—then would this no longer be a sarcoma, but a cancroid, carcinoma, or cystoma. And here I would call attention to the fact that not only may fibroma, myxoma, glioma, melanoma take on a transformation towards cancer, and that it is indeed the more common kind of transformation with enchondroma, but this also, as the other observers admit, may occur in a certain way with sarcoma.

Sarcoma is, with me, an entirely distinct formation. I understand by it *such a formation of which the tissue belongs to the common group of the connective tissues, and which is accurately distinguished from the different species of the connective tissue group by the predominant development of the cell element.*

. . . . . .

Under all circumstances there remains the common type, namely, a tissue in which cells and intercellular substance, even though the latter be reduced to a minimum, are united in a relatively firm and cohering structure, a structure which contains blood-vessels and is in continuous connection with the adjacent connective tissue. In this, sarcoma is essentially distinguished from all epithelial formations, and all cancers and cystic tumors in which the essential part places itself *adjacent* to previously existing structures as something different, in which the specific elements of the tumor are laid down, not continuously, but more or less discontinuously—in simple contiguity.

If this is the common character of the sarcomata, we must indeed make a large number of subdivisions. Earlier (1847), I limited myself to but two subdivisions, the *fibrous* and *fibro-cellular*, a distinction which has been taken up by other authors. But it is not sufficient; it is of value only in the connective tissue (fibrous) form, which is, indeed, the most common. Now we must go further, and lay down just as many subdivisions as we have made tumors of the connective tissue series. Thus, according to the original nature of the tumor whence they are derived, we have:

1. Sarcoma fibrosum, fibrosarcoma, fasersarkom.
2. Sarcoma mucosum, s. gelatinosum, s. colloides, myxosarcoma, schleimsarkom.
3. Sarcoma gliosum, gliosarcoma.
4. Sarcoma melanoticum, melanosarcoma, pigmentsarkom.
5. Sarcoma cartilaginosum, chondrosarcoma, knorpelsarkom.
6. Sarcoma osteoides, osteosarcoma, osteoidsarkom.

I have already stated that there are, in the case of all the connective tissue tumors, transition states towards sarcoma, and that it is sometimes difficult to say whether we shall call the tumor a sarcoma or include it in the usual series. Indeed, it is possible that in a single tumor certain sections may be clearly fibrous, or clearly mucous, or bony, while others, through the highly developed cellular character of the tissue mass, present a different type and appear sarcomatous. But many sarcomata pass directly from the granulation (cellular) stage of a connective tissue into a higher development, without ever having existed as connective tissue, mucous tissue, neuroglia, or other typical tissues of the connective material. But experience still further shows that a sarcoma which had developed itself, perhaps from a fibroma, myxoma, or melanoma, afterwards through infection produces daughter tumors, which from the beginning are neither fibroma, myxoma, nor melanoma, but will immediately become sarcomata. Thus we may have a *sarcoma by transformation* and *sarcoma by birth.*

So futile have been all attempts to resolve the sarcomata into distinct and independent groups, that according to the common classification of tumors there always remain certain forms which do not accord with the special type, and it is indeed interesting to perceive that even different opposers of sarcoma are compelled to lay down in their stead a new set of tumors. They contend more about the name than about the matter. In France, for example, and also to some degree in England, after Lebert, a structure having the general characters of fibrous tumors, and differing from common fibroma in being rich in cells, for the most part spindle-shaped, is called *fibro-plastic*, from the originally received view of Schwann, that the fasciculi of connective tissue were developed from spindle-shaped cells by the splitting up of the body of the cell into distinct fibrils. This *fibro-plastic tumor is really nothing but the spindle-celled sarcoma, sarcoma fasciculatum* of other authors.

Paget has pursued another course, indicating a part of the sarcoma by the name *malignant fibrous* tumors, and a second as *recurrent fibroid*, to which he has added a third category in the *myeloid tumors.*

With regard to the first two, he has considered certain physiological qualities, *malignity* and *recurrence*, as giving the name, which is not justifiable in the face of a well-determined histological principle of classification.

Again, other observers, among whom are many surgeons and anatomists, believing the greater part of the sarcomata to be malignant, immediately consider them cancerous, and straightway must cover them with the name carcinoma.

The fundamental error is here in observation; but there are also mixed forms of carcinoma and sarcoma; tumors in which certain sections are sarcomatous (fibro-plastic), and others carcinomatous. So that we may, indeed, though in a sense different from that of Abernethy, speak of a *carcinomatous sarcoma.* When this occurs, it may be that sarcoma degenerates into cancer—that the sarcomatous elements transform themselves into or beget the cancer elements—but more frequently the cancer elements develop simply adjacent to the sarcoma, and the two afterwards grow together as two branches on the same trunk. They do not, however, originate synchronously, but the earlier development is sarcomatous and the later carcinomatous.

. . . . . .

Although any of the tissues of the connective tissue series may serve as the matrix of sarcoma, yet the proper connective tissue is the first point of predilection. After these come principally the soft connective tissues, the mucous tissue, neuroglia, and different kinds of marrow of bone; but the true adipose tissue shows a

much slighter tendency to sarcoma than to carcinoma. Of the hard tissues the osseous are much more disposed than the cartilaginous, of which the osteoid form, the skin or bone cartilage, is the more frequent starting-point.

As to consistence, there are two great groups of the sarcomata—*the soft* and *the hard*—though this is intended to be general. We may, indeed, say that the fibro-sarcoma, chondro-sarcoma, and osteo-sarcoma are hard, that the myxo-sarcoma, glio-sarcoma, and melano-sarcoma are soft; but as melano-sarcoma exhibits sometimes a greater and sometimes a less consistence, so also fibro-sarcoma is very changeable, and even the osteo-sarcoma and chondro-sarcoma have often quite large parts of marked softness. Of great importance is the condition of the intercellular substance which determines the consistence. The forms rich in cells are naturally particularly soft. . . . . As regards the forms of the cells, a many-celled sarcoma, composed entirely of spindle cells, may be as soft as one of round cells, though it is true that the latter more commonly constitute the soft forms.

As to the *size* of the cells, all sarcomata may be divided into two great groups—the *large-celled* and *small-celled*. To the small-celled belong the essentially glio- and myxo-sarcoma, which he would term glio- and myxo-sarcoma parvicellulare. Among the large-celled are most frequently the fibro- and melano-sarcoma, though there occur also certain myxo-sarcomata with very large cells (myxo-sarcoma magnicellulare). And, indeed, there are certain forms, the so-called myeloid tumors, which furnish really giant cells—sarcoma giganto-cellulare.

Finally, in each variety, the *vascular development* may become so marked that entire masses may acquire a different appearance—sarcoma telangiectodes. This is especially prone to internal or external hemorrhages, and thus may constitute a form of the so-called fungus hæmatodes.

Should the tumor develop in the interior of an organ which it entirely fills, it may produce an "infiltration" or "hypertrophy"—sarcoma diffusum. Thus it may occur in muscles, or the female breast, or in the testicle (sarcocele). But never is this, in the sense of Philip von Walther, a pure hyperplasia. The *growth occurs in the interstitial tissue, while the specific elements* (muscular fibres and gland cells) *often atrophy*, and under certain circumstances the natural cavities and canals enlarge themselves (cysto-sarcoma), though this latter term is used very ambiguously, and often in a different sense from this. . . . . .

As to *minute structure*, it appears from what has been stated that the condition of the intercellular substance determines the *variety* of the sarcoma, but not the sarcoma *as such*. For this the cells are much more characteristic. And with regard to the cells, again, it is not so much the number as their *development*. The number determines the medullary (soft) character, and furnishes rather the means of confounding with epitheliod, lymphoid, and especially cancerous growths, than instructs us as to the nature of the tumor. It has only weight in connection with the size and endowment of the cells themselves.

With regard to the form, the *cells in all sarcomata furnish known cells of the connective tissue form, though in a certain measure in a hypertrophied state.* They are often forms of elements which normally attain a very moderate development. Even by slight amplification we clearly see forms which previously (to development) could only be recognized by high amplification and very careful preparation. As in the normal state of connective tissue, we find in sarcoma round cells, spindle cells, and radiated cells, and sometimes all these forms in the same tumor, while at others but a single form is met. If the round predominate, the sarcoma is easily mistaken for cancer; if, on the other hand, spindle forms prevail, we speak of fibro-plastic tumor. Radiated cells of uncommon size in the myxo-sarcoma of the nerve centres may easily be mistaken for multipolar ganglion cells, and give occasion for (erroneously) admitting the existence of nerve tumors (Beale, Archives of Med., vol. i., p. 52, Pl. ix., fig. 4-5).

Though there is a certain convenience of speech in indicating the different sarcomata by the different forms of their cells, yet it must not be forgotten that the same sarcoma may, in different sections, contain all the different cell forms. Thus a melano-sarcoma may be composed entirely of spindle cells, and without further ceremony be characterized as *spindle-celled sarcoma;* and it is then probably to be preferred, not perhaps to divide the melano-sarcoma according to these different forms, but much rather within the same to make further subdivisions, according as the cells assume one or another form. Quite like this is it with the fibro- and myxo-sarcoma.

Among the most favorable for diagnosis, and therefore the earliest distinguished, are the *spindle-celled sarcoma* (fibro-plastic tumors), because if there is but little or a very soft intercellular substance, the spindle cells are generally very easily isolated, or, if more abundant or harder intercellular substance holds them together, they are easily recognized by the addition of acetic acid. The individual cells present, for the most part, a somewhat compact cell body, which generally presents, in the *vicinity* of the *nucleus*, a more *decided* swelling, and terminates on each side in a *fine, sometimes very long, prolongation* or ray (tail, hence caudate corpuscles). By quite regular development there is but a single prolongation; by very luxuriant growth, on the other hand, there sometimes grow several *subdivided prolongations;* and the spindle or fibre cell approaches the polar and reticular cell. Indeed, there exists between these two forms no sharp boundary. Often the direction of a section determines whether we see a spindle cell or reticular cell. The same cell can, in longitudinal section, appear as a spindle cell, and in transverse as a reticular cell.

The clear, smooth, bi-caudate spindle cells *usually lie more* or *less* parallel, sometimes separated by an abundant intercellular substance, sometimes immediately in contact with each other. In the latter case there is a very great resemblance to certain epithelial formations as they particularly occur in certain cancroids. For epithelial cells also, especially pavement and transition epithelium, may have two long extensions, and if they stand upon the edge, resemble, in mass, the spindle cells of sarcoma. They are frequently determined through the hard, horny condition of the membrane; still more by the broad, flat shape of the cell body, which, by turning around, stands out clearly. But there are still cases where, by the greatest care, we come to a correct conclusion with difficulty. The cells are sometimes, even in cancroid, so delicate, and they so fold and push themselves together, that even by turning around they appear more or less spindle-formed. The epithelium of vessels may also serve as an example from normal histology.

In well-formed spindle sarcoma, there are sometimes formed out of the cells larger collections (züge), lamellæ or fasciculi, so that we may speak of lamellar or fasciculated sarcoma (sarcoma lamellosum, fasciculatum). In transverse sections of these bundles there is a possibility of mistaking the appearances for those of cancerous tumors. If the sections of the spindle cells

are round, we may easily believe that in place of the transversely cut bundles we see a group of round cells, and then we may be disposed to infer the existence of an areolar structure. If the bodies of the cells are not very thick, as is often the case, then their transverse sections will appear lentil-shaped, and it will be very difficult to distinguish them from certain forms of epithelial cells. Here only careful observation will aid us, as examining the same region through sections in different directions.

The *nuclei* of the spindle cells are generally oval. If they grow very large they become wider, and assume a more rounded appearance. But in this case they are not spherical, but flattened, lentil-shaped.

Usually there is but a single nucleus, though there are not unfrequently cells in which we find two and even more. Each one of them has a sharp contour, a *solid, usually* decided *granular appearance*, and one or more smooth, uniform, shining *nucleoli*.

The proper cell body appears as a pale, though likewise granular mass, frequently limited by a very clear and tough membrane. The spindle cell bears a marked resemblance to the organic or smooth muscular fibre, and it is often difficult to distinguish it from the latter, as well as from the elements of certain kinds of myoma. The size of the nucleus and nucleolus, the frequent continuations and projections, the length and attenuation of the latter, and the granular appearance of the cell body, indicate the cells of the sarcoma; but these characters are not so constant but that the most experienced observer may occasionally meet with great difficulties. Upon this ground alone it is indeed appropriate to retain the term *flesh-tumor* or sarcoma. Very properly, also, Müller identifies the caudate corpuscles of sarcoma with the spindle-shaped corpuscles previously recognized by Froriep and Schwann as young connective tissue, and the fibro-plastic corpuscles of Lebert are nothing else.

Most observers, in addition to a more or less abundant intercellular substance in the fusiform-celled sarcoma, speak also of *free nuclei*, since these no longer retain their peculiar importance as the starting-point of a new development, according to the cell-theory of Schleiden and Schwann. These originate in the *disintegration* of cells, especially in the preparation of the object. The more careful the preparation, the more rarely do we find them, and in good hard objects they are entirely absent. In fresh tumors, on the other hand, the cells are sometimes so easily disintegrated, that in an ordinary examination, by the addition of water, we find almost no cells, but only free nuclei. No one has placed greater stress upon these nuclei than Bennett, who indicates certain tumors as *fibro-nucleated*, though he admits, also, that "this structure occurs also in sarcomatous and osteo-medullary tumors." Paget ranges them as his *recurrent fibroid*, and Rokitansky as his *fasciculated carcinoma* (carcinoma fasciculatum).

The prognostic value is determined, for the most part, sometimes by the seat and size of the tumor, at others through their tendency to infection. A peculiar cachexia, such as is so much written of in connection with cancer, seldom occurs, and then only late. . .

Pain, ulceration, and hemorrhages, though they occur, are rare; and when the first is present it is due, for the most part, to pressure upon a nerve. Lymphatic glands possess a relative immunity from attack. Almost every kind of sarcoma has a certain tendency to recurrence, many being operated upon four or five times in the same place. But, under these circumstances, the zone of latent disease has extended unequally, and the operation was not sufficient either in depth or in circumference. . .

Sarcomata originate, 1st, by *direct continuity*, in *homologous* or heterologous tissues; 2d, by *discontinuous* extension of daughter tumors in the neighborhood, and of daughter tumors in distant situations. The latter can only be effected through the blood, as a conveyer of cells or juice to distant situations (metastasis). These secondary or daughter tumors are always identical with the primary, whence an argument against the supposition that they all originate simultaneously as the result of a dyscrasia.

NOTE BY THE TRANSLATOR.—The sarcoma is also considered by Virchow as furnishing additional evidence of the correctness of the theory of cell pathology, and of the *local origin* of tumors, and consequent propriety of early removal under all circumstances.

We have made this somewhat extended, though, we fear, imperfect translation, because we have been anxious that those interested in the pathology of tumors might have the opportunity of appreciating the position given by the highest living authority to a term which has become extremely vague, and with regard to which still greater confusion would arise from an imperfect conception of what he intends to convey. To do this by illustration and comparison we believe to be desirable.

That the term sarcoma, employed by Virchow to indicate a class of tumors originating from connective tissue, and characterized by an increased development of the cellular element, a diminution of the fibrous—in many cases to a minimum—is a very distinctive term, conveying in itself a clear idea of the physiological and physical characters of the class, we do not think is the case. With regard to a single group of these tumors, we must admit that the name "recurrent fibroid," employed by Paget, gives us a better idea of the physiological characters than spindle-celled sarcoma. But this is but a single subdivision of an extended series, and the term "recurrent fibroid" is equally deficient in conveying the idea that the division it represents is one of a great class, of which all the individuals have a common mode of origin and development, as well as common physiological attributes. And if an author succeeds in so associating a term with what he describes it to represent, that by a correct appreciation of such description no confusion can arise, this is truly better than to single out individuals of a series and indicate them by terms which do not indicate existing common characters, origin, and mode of development, with other individuals of the same series. We must not lose sight of the fact, however, that such individual members of a series should also be indicated, and this Virchow has done by the use of such terms as "spindle-celled sarcoma" (sarcoma fusocellulare), "round-celled" sarcoma (s. globocellularia), "reticular-celled sarcoma" (s. reticulo-cellulare), &c., terms giving accurately, additional anatomical characters.

QUALITY AND VALUE OF GYPSUM.—Gypsum, consisting of lime, 32·55; sulphuric acid, 46·51; water, 20·94, used as ground plaster on lands, and for making plaster for walls, ceilings, cornices, etc., is a valuable article of exportation from Nova Scotia.

From 1854 to 1867 inclusive, 1,020,677 tons of gypsum were exported from Nova Scotia. Value in dollars, $812,904.

ZINC CEMENT FOR TEETH.—Finely powdered white sand, 4 parts, and fresh white oxide of zinc, 12 parts, are mixed together and kept in bottles with well-fitting stoppers. When required for use, 4 parts of this mixture are rapidly mixed with a solution of one part of powdered borax in 2 of hot water and 50 of a highly concentrated solution of chloride of zinc.

THE STATE OF SCIENCE IN PARIS AND LONDON.

A REVIEW OF A PROFESSIONAL VISIT ABROAD.

By G. M. BEARD, M.D.

I HAD been told by those whose opportunities for forming right judgments concerning the medical history of Paris entitled their opinions to the highest respect, that the science of that city was not as active as formerly, and that very little was doing there, and very little could be learned there, which had not been previously done and might not be better learned in Germany and England. So far as I could ascertain from the brief examination I was enabled to give, this statement was partly true, and partly untrue.

It is true that to a certain extent, at least, Paris has lost or is losing something of her *relative* prominence in the world of science. Within the past fifteen or twenty years Germany, inspired by her success in literature and philosophy, has been boldly taking possession of the domain of science, bringing to the pursuit all that patience, that unwearying diligence, that devotion to truth, for which the Teutonic race have been so long and so justly distinguished. The result has been that not only in medical but also in collateral science Germany is at present the dominant power. Although she has not driven other nations from the field, has indeed rather allied herself to and aided them, yet her achievements have been so numerous and imposing that she now dwarfs the proportions of her allies. The relative inferiority of France is therefore partly accounted for by the greater and more rapid success of Germany. But casting aside comparisons, there is certainly some basis for the opinion that in medical science, at least, France has not been as active or as successful during the past fifteen or twenty years as formerly; that the Paris of 1869 is not the Paris of 1840. It is said that a spirit of self-satisfaction is abroad, which feeds on the memory of a past reputation, and congratulates itself on the honors already won. In a progressive specializing age like the present, no man of science can afford to dispense with the aid of his brethren, and no country can long maintain the first position in the medical world that rejects or despises any real truth, come from what source it may.

In France comparatively few physicians are familiar with the English language and literature; and as the number of English and American works that are translated into French must always be but a small proportion of our really valuable publications, it is evident that they must be shut out from a knowledge of many important scientific truths. In Germany the English language is regularly studied, and, by the ambitious and rising young men in science, very frequently spoken, so that it is possible for an English or American physician to spend considerable time in Berlin, visiting hospitals and attending cliniques, without attempting to speak any other language than his own. The scientific Germans not only read and speak our language, but are also, in many instances, wonderfully familiar with our literature, not only in medicine, but also in general science, in philosophy and *belles-lettres*.

On the other hand, science is not dead in Paris, even though it may appear to have been sleeping. The true position of affairs was very well represented to me by a well-known American physician who has long resided and practised in that city. He stated that for the past few years there have been less activity and progress than usual because a large number of old men, long past the age when radically new ideas are either originated or received, had held and kept the posts of honor of the college and hospitals, to the exclusion of men of more advanced tendencies. Some of these conservatives have recently passed away, leaving the field open to younger and more ambitious competitors, who are eagerly entering in and taking possession. These new aspirants for fame are now experimenting and are making discoveries, and, in every way, striving to vindicate the scientific glory of France.

I am told by those well informed in the special departments, that Paris at present is behind in gynecology and in surgery, and that in ophthalmology some of their leading authorities are of foreign birth. In the department of nervous diseases and electro-therapeutics I found considerable activity, though much less than in Germany. The names of Duchenne and Charcot are well and deservedly eminent for patient and successful investigation in the treatment of nervous diseases, and they are still actively at work. Brown-Séquard, who now resides in Paris, is still laboriously prosecuting those interesting experiments which have given him such an extended reputation, and stimulated so many other inquirers in the dark and difficult problems of the nervous system.

The statement has been made that the scientific energy of the French is wasted on frivolous experiments, and in the construction of fantastic instruments and apparatus that serve no purpose except to show the ingenuity of the authors.

That this criticism has some basis of truth I am well convinced from what I saw of their contrivances for electro-therapeutics.

A writer in the *Revue des Deux Mondes* has recently endeavored to account for the apparent decline of science in France by the influence of governmental protection: that too much was done by the authorities and too little allowed to individual exertion.

But even if, in the distant future, France, in obedience to the mysterious law of national decay, shall follow in the path of Italy and Spain; if her coming glory is to consist mainly in the admiration of past achievements, in the contemplation of beauties of architecture and splendor of monuments; yet that decline cannot fail to be retarded and modified by the powerful and beneficent influence of the scientific genius of her people. A nation that can point to a Bichat, a Trousseau, a Bernard, will not tamely relinquish the laurels she has won in the well-fought fields of science, and will not yield, without a desperate struggle, even to the decrees of fate itself.

But all our appreciation of the obligation that medicine owes to France, must be tempered by the reflection that the unfortunate theory which made diagnosis too exclusive an element in medicine—a theory which has paralyzed our therapeutics and retarded the progress of all science—was mainly of French origin; that in Paris it found its ablest and most influential advocates, and that its latest lingerings and final death will probably be in the land which gave it its origin. In Germany even, where therapeutics, for various reasons, has been much behind other departments, a reaction at last is setting against the school of exclusive diagnosis; and I know not where, in the writings of any medical authority, can be found a more earnest and emphatic protest against the prevalent views concerning the relation of pathology to therapeutics, than appears in the preface to Neymeyer's Practice of Medicine.

LONDON.

The enormous size of London has given it a decided advantage over most other cities in science as well as in commerce. Although the cities of Germany, through

their rapidly multiplying specialties, have been enabled to accomplish more of original investigation in certain departments, yet no other city can exhibit such an enormous concentration of scientific genius and culture and enthusiasm as London.

When we consider the immense advantage that the human intellect derives from attrition, from the stimulus of rivalry and opposition, from the inspiration of numbers, and the enthusiasm of a common cause, we can scarcely wonder that science in London is both more prosperous and more influential than in any other metropolis.

Shortly before I left New York Dr. Agnew remarked to me that physicians travelling abroad made a great mistake in giving too little attention to London; that the leading physicians of that city travelled largely on the continent, and gleaned from it whatever was of practical service in science.

In the department which I had time to examine, I found the truth of this remark abundantly verified. While this fact should not prevent the travelling student from spending as much time as possible at the original sources of investigation, it certainly should induce him to observe the workings of science in London much more thoroughly than is now the fashion. He will there find the theories and experiments of the Continent tested by experience and reduced to practice by some of the ablest and best cultivated minds of which the profession in any country can boast. It must be remembered that the medical genius of Germany, though profound and original, is yet incomplete; that in the past its tendency has been to fail just at the point where failure is most unfortunate—in practical therapeutics.

Germany, as all the world knows, is the chosen home of *à priori* reasoning, and the German physicians have been too much inclined to treat their patients on *à priori* principles.

Now this principle of treating diseases may be thoroughly logical, as every reasoner must admit; but it is unfortunately the case, though none the less true, that therapeutics is not a matter of logic or *à priori* reasoning, but of experience alone; that with our present knowledge, or rather ignorance of vital chemistry, of the nature and action of remedies and the laws of disease, the severer our logic and the more accurate our mathematics, the more liable we are to err in our therapeutics. Accordingly we find that the Germans are hardly as successful in their treatment of many forms of disease, as others who perhaps may be far less logical and scholarly. It is in therapeutics—in the practical application of remedies to the treatment of disease, that the excellence of the English physicians is most apparent.

The experimental system practised in Germany is advantageous for science, because it teaches us the value or the uselessness of certain methods of treatment; but it is apt to be unfortunate for the patient. The practical eclectic system of the Anglo-Saxon is in one way disadvantageous to science, because it uses in combination those methods that have already been proved to be of service by actual experience; but for the patient, it is as much more fortunate than the German system, as it is less logical and scientific.

But the great fact of London is not so much the powerful concentration of knowledge as its generous diffusion. Science is not there a cold, inaccessible mountain, but a warm and genial sun—shining all the brighter for its concentration, and sending its rays of life and truth through the walks of the humble and the lowly. In many of the leading minds of England is the conviction deepening and strengthening that knowledge is not for the few but for the many; that on them rests something of the burden of the ignorance and woe under which the land is groaning.

The result of this conviction is that in no other city of the world are such vigorous efforts made for the extension of scientific knowledge among the people, as in London, and in no other city are these efforts headed by such able and distinguished men. Prof. Huxley, at present the foremost scientific man in Great Britain, by general consent of friend and foe admitted to be one of the ablest minds of our generation, is also the foremost in the movement for the popularization of science. It has been his custom, for several years, I believe, to deliver evening lectures on science to working men, in the amphitheatre of the School of Mines, and his popular writings have long been familiar to both hemispheres. His recent essay on *Protoplasm, or the Physical Basis of Life*, was originally delivered to a popular audience, was published in a popular review. Whatever may be thought of its views or tendencies, there is no doubt that this short, unpretentious essay has done more to arouse the laity to a sense of the importance and the claims of science, to the necessity of meeting these claims by something better than dogmas, than any other publication of our time. The ripple which it produced was not confined to England and America, but extended to Australia, where, at the time I was in London, it was still under discussion. It may be remembered that the system of Sunday evening lectures inaugurated by Prof. Huxley, Carpenter, and others, was summarily brought to a close by an unfortunate execution of a rigorous Sabbath law. I was glad to be assured by Prof. Huxley that the attempt would be renewed this coming season, under better auspices, and with every prospect of success.

Science in England has been very much aided both in its diffusion and in its concentration, by the writings of Herbert Spencer. Although this distinguished man, for a variety of reasons, is not as extensively popular in his own country as in America, yet his influence is strongly felt, and, among a few well qualified to judge, his ability is fully acknowledged. The fact that one of his works has been placed on the list of books for examination at Oxford, is an important evidence of the rapid growth of scientific ideas.

Scientific literature is much indebted to the writings of Mr. George Henry Lewes, whose "Physiology of Common Life," "Biographical History of Philosophy," and "Life of Goethe," have been so much admired, and won for their accomplished author so many friends in America.

Macmillan, also, has just started a weekly scientific journal, called "*Nature*," to which a large number of eminent authorities in the several departments will contribute. The enterprise will be something of an experiment even in London, which already supports an incredible number of able periodicals; but there is great reason to hope that it will be permanently sustained.

A very important result, or cause, or accompaniment of this scientific enthusiasm in London, is that the medical profession there is a strong power in society, and makes its influence more intensely and practically felt on all politico-sanitary questions than in any other city of the world.

Although they are yet far from the millennium in London, although there yet remain many prejudices to be overcome, and many wrongs to be righted, yet on all those subjects with which the profession is concerned, the *Lancet* speaks, to the people and to Parliament, as one having authority, with an earnestness that enforces conviction, and in a tone that commands respect even though it does not insure success. The feeling with many of their editors and public men is, that as

to medico-political questions, concerning which there is honest difference of opinion, the battle must first be fought out and decided by the profession, while the laity remain the lookers-on. With us the custom has been for legislators to settle all the difficult questions for themselves, by very little assistance from others' wisdom, and still less from their own. In England the enactment of an unconditional prohibitory law against the judgment of the majority of scientific authorities, would hardly be possible.

In bringing this series of letters to a close I wish to say a word in refutation of the common belief that England and Germany are unwilling to acknowledge the true merits of America. I do not see how one can spend three days in the scientific circles of Berlin or London without becoming impressed with the grateful fact that Truth knows no boundaries of race or language. It has been said that Germany dislikes to accept the authorities of other lands; but the writings of Herbert Spencer, John Stuart Mill, and Darwin* are translated there, and well appreciated. The guild of European science demands, very properly, that those only shall receive its honors who have first earned them; and that no one shall be admitted to the brotherhood of thought, who has not in some way contributed to the thought of the world. They insist upon something more than mere compilation or arrangement of the labors of others, and hold that the republic of ideas is open only to those who have new and original ideas to offer. The men whom they delight to honor are those who have at least endeavored to advance science by original research, patient investigation, or who, through evil as well as good report, have boldly advocated unpopular truth. My meaning is well expressed in a remark that was made to me by a scientific man in London, himself a laborious and successful discoverer, "In England we honor hard work." In conversation with English physicians I was frequently impressed by the interest which they manifested in the periodical and other writings of American experimenters. For example, many of the papers that have appeared in the RECORD in various departments, as well as the leading articles, were as familiar to them as to us, and in some instances, among medical editors at least, had excited even a deeper interest than in America. Even the delicate subject of American *vs.* European Medical Science, which has been editorially discussed by the RECORD, was taken up by the *Medical Times and Gazette* in a manner at once appreciative and kindly.

Our leading American authorities have received some of their highest compliments from Europe. Of Prof. Austin Flint, Sr., the profession in London speak in the very highest terms.

Dr. Hughlings Jackson, one of the very ablest men in our profession, remarked to me, pointing to the works of Prof. Flint in his library, "He has not his superior in any country."

The researches and experiments of Dr. J. Marion Sims have been and are still as thoroughly appreciated in Germany as in America, and if I am rightly informed, the German translation of his work on Uterine Surgery has already passed to a second edition.

In spite of all the jealousies and the injustices which are common to our nature, it is yet safe to say that the European acknowledgment of an American scientific work of original and positive value is simply a question of time.

NEW YORK, Dec. 15, 1869.

* "What specially struck me was the universal sway which the writings of Darwin now exercise over the German mind. You see it on every side, in private conversation, in printed papers, in all the many sections into which such a meeting as that at Innsbruck divides. Darwin's name is often mentioned, and always with the profoundest veneration. But even where no allusion is specially made to him, nay, even more markedly, where such allusion is absent, we see how thoroughly his doctrines have permeated the scientific mind even in those departments of knowledge which might seem at first sight to be furthest from natural history. 'You are still discussing in England,' said a German friend to me, 'whether or not the theory of Darwin can be true. We have got a long way beyond that here. His theory is now our common starting-point.' And so, as far as my experience went, I found it.

"But it is not merely in scientific circles that the influence of Darwin is felt and acknowledged. I do not think it is generally known in England, that, three years ago, when, after the disastrous war with Prussia, the Austrian Parliament had assembled to deliberate on the reconsolidation of the empire, a distinguished member of the Upper Chamber, Professor Rokitansky, began a great speech with this sentence:—'The question we have first to consider is, Is Charles Darwin right or no?' Such a query would no doubt raise a smile in our eminently unspeculative houses of legislature. But surely never was higher compliment paid to a naturalist. A great empire lay in its direst hour of distress, and the form and method of its reconstruction was proposed to be decided by the truth or error of the theory of Darwin. 'The two men,' said one able physician of Vienna to me (himself, by the way, a North-German), 'who have most materially influenced German thought in this country, are two Englishmen—George Combe and Charles Darwin.'"—(*Letter from Innsbruck, published in the first number of* NATURE.)

A CASE OF RECOVERY FROM TRAUMATIC TETANUS.

BY JOHN HOWE, M.D.,
NEW YORK.

ACCORDING to Braithwaite, a recovery from traumatic tetanus is always of such interest as to merit record when met with. I would therefore beg to transmit the following case:

On July 16th, 1869, William H. Hepburn, æt. 32, a member of H. & L. Co. No. XII. of the Metropolitan Fire Department of this city, while trying to stop a runaway horse, fell, and received a lacerated wound of the scalp over the squamous portion of the temporal bone, from a blow of the animal's hoof. Carried to a neighboring apothecary's shop, he was attended by Police Surgeon Van Buren, who dressed the wound with sutures, lint, compress, and bandage, and sent him home. The family medical attendant then took charge. On the afternoon of July 23d he was hastily summoned, on account of his patient's jaw becoming suddenly locked. Pronouncing the supervention of tetanus, he advised the man to go at once to the Bellevue Hospital, and on this being declined, he threw up the case, told Hepburn to get another doctor, and left the house without prescribing. For the next day and a half there was no medical attendance; but late on July 25th, nine days after the injury, and two days after the access of trismus, I was sent for. I found the patient sitting up, partly dressed, with his head tightly enveloped in a night-cap bandage, that swarmed with flies and gave out a most loathsome stench. The trismus, which had been growing rapidly worse, scarcely admitted the insinuation of the first phalanx of the index between the teeth. The masseters, and the muscles below the jaw, were in a state of stony rigidity, and gave him great pain. The left facial nerve was completely paralyzed, and the eyebrow much depressed; while the activity of the right face, with its eyebrow drawn so far up above its fellow, caused the sardonic grin produced by the spasms to be asymmetrical, and made it odd as well as frightful. The head was inclined to the left. Muscular spasms were frequent, quite violent, and mostly situated on the spinal and trapezius muscles. The cramps appeared to commence in the latter muscle, beginning alternately in its left and right borders, and extending downwards with a crescendo movement, involved the whole back, bending back the head and causing a shriek of pain. The feet were drawn up simultaneously with the dorsal cramps. These opisthotonic convulsions followed in such rapid succession as to seem ever present, and ren-

dered their poor victim all but frantic. They would be excited by the falling of a book, or a heavy footstep, or a loud word; and his wife, whose voice was peculiarly thin and high-pitched, kept him in terror. The diaphragm was only slightly convulsed, the recti muscles not at all. The pharyngeal muscles were so much affected as to cause very difficult deglutition, and food would be violently shot out of the mouth during their paroxysms. Fluids, when taken, would trickle more or less out of the mouth at its paralyzed corner. The tongue was badly bitten. The intellect was clear, and great complaint was made of the dreadful cramps, and of weariness and want of sleep. Temperature normal. Bowels constipated; appetite good, and he had been able to mumble soft food.

Diagnosis.—Traumatic tetanus from peripheral irritation of the left temporal nerves, with facial paralysis.

Prognosis.—To my own mind the prognosis was equivocal. Tetanus had existed for two days, the vital condition of the patient was fair, and I thought that he might possibly recover if he could be kept alive three or four days longer. The opinion expressed to the family was unfavorable.

Treatment.—1st. Local. On being divested of a putrid mass of suture silk, sulphuretted adhesive plaster, foul lint, and maggots, an irregularly shaped wound, five inches long by three and a half broad, involving the temporal fascia and muscle, and denuding the squamous periosteum to the extent of four square inches, was discovered in a state of sloughing phagædena.

The wound was immediately flushed with carbolic acid and water, and cleansed thoroughly, and a rag wetted with the same lotion applied. This arrested the sloughing at once; and in two days healthy granulations appeared. No other dressing was used, and the wound has filled up rapidly.

2d. Constitutional treatment. This presented two indications: (*a*) To stop the spasms, and (*b*) to sustain the patient's strength.

The Calabar bean being the last announced antitetanic of considerable reputation, I resolved to exhibit that remedy, but not until I had more thoroughly informed myself of its use in the cases cited by Dr. E. Watson, of Glasgow, Scotland, in the current number of *Braithwaite's Retrospect.* In the meantime I ordered a bottle of the citrate of magnesia, to clear the bowels, and prescribed svapnia, one grain every hour, beginning with a two-grain dose. On my next visit, I found that after six grains had been taken the spasms were mitigated in severity, and the next day the drug had produced slight narcosis, with the effect of diminishing slightly the frequency of the paroxysms. This being such a good result, I accepted the situation, gave up the notion of the bean, and determined to fight the case out on the line of opium. A few days after, on account of dysphagia, I substituted Magendie's solution of morphine for the svapnia, settling upon twelve drops every hour as the proper amount to give. Under this treatment, simply varying the dose from twelve up to twenty drops *pro re nata*, the patient was made comfortable, and was enabled to catch short naps without being startled by the spasms. A drowsy look and contracted pupils were the only evidences of narcosis produced. The convulsions were not abolished entirely, but their intervals were lengthened and their edges taken off. After the first week the average daily number was six. On one occasion only was the morphine suspended. Then, imagining that atropine might possibly relax the rigidity of the sub-mental muscles, I administered that alkaloid to the extent of four-fiftieths of a grain, but the increasing trismus and the increasing spasms drove the patient back to the morphine. The last spasm finally occurred on August 19th. The trismus disappeared the next day. The morphine was at once tapered off, and on August 25th, exactly one month from the date I was called, it was entirely stopped. The amount of the solution actually consumed was equivalent to about one hundred and eight grains of the alkaloid. The svapnia taken amounted to forty grains.

The second object of treatment was to fortify the patient's *vis vitæ*, in the hope that the disease would wear itself out before it succeeded in killing him. Dysphagia limiting the range of food, two pints of strong beef-tea morning and night, and six ounces of Jamaica rum in the shape of milk punch, during the twenty-four hours, were ordered, and no restriction was placed upon his eating any such food that he could swallow.

Result.—Hepburn was able September 8th to do "house duty" with his company, the wound still preventing the wearing of his helmet in the out-door service.

311 WEST 17TH STREET, Nov. 15, 1869.

TREATMENT OF MIASMATIC FEVER.

BY JAMES S. BAILEY, M.D.,

ALBANY, N. Y.

INTERMITTENT fever, remittent fever, chills and fever, ague, dumb ague, and congestive fever, are produced by malaria or miasm.

Since June, 1859, I have been familiar with malarial fevers as they occur in Southern Texas, in the vicinity of the Brazos, the richest cotton-growing region of the State.

Texas is subject to great extremes and diversity of climate. A part of the season the earth may be saturated with water, and another portion parched from excessive drouth. That this has been the case from time immemorial, is evident from the dwarfed and scrubby appearance of the timber.

Late in autumn this diversity of climate appears in a succession of "northers," occurring generally every ten days, and lasting ordinarily 48 hours, increasing in severity as the season advances, until about Christmas, when a norther appears, lasting from five to seven days. After this they decrease in severity until warm weather commences. The wet season often lasts during the winter and spring months, causing a luxuriant vegetable growth. The withering influence of the hot sun upon the rank vegetable growth, and the drying of pools of stagnant water, charge the atmosphere with deadly miasm. About the first of June we look for an increase of bilious miasmatic fevers, and as the season advances congestion appears in its various forms.

During such seasons very few escape the influence of this pernicious atmosphere; and individuals, when once impressed, are subject to repeated relapses, or recurrence of attacks, at stated intervals of every seven days, or days represented by a multiple of seven.

If the system can be sufficiently fortified to prevent a recurrence for 30 days, the prospect of exemption for the remainder of the season is favorable.

I do not propose to speak of the pathology of this class of fevers, for they are generally well understood; but their treatment as recommended by most authors, according to my observation and experience, is entirely inadequate. We always find a great derangement of the hepatic functions, and every prevailing sickness is more or less complicated in this respect. Hence we have bilious diarrhœa, bilious pneumonia, &c.; and it is invariably true that the successful treatment of these diseases depends much upon the proper administration of the well known antidote for this poison.

After careful and close observation I was in the habit of pursuing the same course of treatment in mild cases as in the congestive form, for we could not prognosticate the moment when the disease would assume the congestive type, and terminate fatally if not promptly treated with active remedies; consequently I was seldom surprised, and I attribute much of my success to this mode of treatment.

If called soon after the attack, and I suspected my patient had over-indulged his appetite, I ordered a stimulating emetic of mustard and warm water. This immediately emptied the stomach, ejecting matter which otherwise would have become a source of much annoyance. If the skin was hot and dry, with a bounding pulse, with cephalalgia, and excessive neuralgic pains in the back and limbs, I found a mustard foot-bath of immediate service, equalizing the circulation and determining the blood to the surface, thereby relieving the tendency to congestion, and preparing the system for other remedies of a more permanent character.

It is necessary to know how to administer a foot-bath effectually. Although so simple, but few do it intelligently. The patient should lie upon his back, with his limbs flexed and drawn upwards, so that the feet can be placed in a foot-tub put in bed with warm water and a table-spoonful of mustard. The bath and person should be covered, except his head, for at least fifteen minutes, or until perspiration becomes general; then the bath should be removed, and a sufficient quantity of bedding supplied to maintain diaphoresis. I now prescribe the following:

℞.	Sulph. quinine,	ʒ jss.
	" Morphia,	grs. jss.
	Pulv. Ipecac,	grs. ij.
	Piperine,	grs. v. M.

Ft. pills xviij.

Give one every three hours, for at least 48 hours.

At 3, 6, and 9 p.m., I give pills, hydr. chlor. mit. grs. ij. At the same time I administer one of the above. Should the bowels not be sufficiently moved by these by eight o'clock a.m., it is advisable to take at least ʒ ij. castor oil, or some other laxative, to thoroughly cleanse the alimentary canal.

At the expiration of this time the fever will have subsided, the tongue will have partially become clean, the appetite will gradually return, and the patient will be thoroughly convalescent. Owing to the tendency to relapse it will be necessary to pursue a tonic course, changing the form every seven or ten days, for at least thirty days. A favorite prescription with me is the following:

℞.	Sulph. Quinine,	ʒ ss.
	" Morphia,	grs. ij.
	Ferri Pulvis,	ʒ ss.
	Ol. Sassafras,	gts. x.
	" Blk. Pepper,	gts. xxx. M.

Ft. pills xxx.

One should be taken three times per day. This should be followed by some ferruginous mixture or simple bitters. The treatment of congestive fever should be very prompt, and much good sense be displayed. When the brain is the seat of congestion the mustard foot-bath must be resorted to, with cold affusions frequently applied to the head.

If an aggravated case, a strip of emplastrum cantharidis 3 × 12 should be applied from the nape of the neck along the spine, and should remain until the surface is thoroughly blistered. When a more instantaneous impression is desired I have used a concentrated form of ammonia (Granville's lotion). I generally prefer the cantharides on account of its continued action. Should consciousness not rapidly return by the use of these remedies, I have very successfully thrown 4 or 6 ʒ spts. turpentine up the rectum. This keeps up a constant irritation along the spine, and as soon as the patient becomes sufficiently restored to manifest an uneasy sensation about the rectum, it is easily washed away by throwing up some tepid water.

I do not approve of venesection, although some claim to have successfully practised it. If a patient recovers after venesection he certainly will convalesce more rapidly without it, for in malarial cachexia there is a deficiency of the red principle of the blood. In a few desperate cases I have made an effort at venesection, but the blood has refused to flow. Quite early in the attack this difficulty might not arise. The treatment mentioned previously is proper and necessary from the commencement of the attack, if the patient is able to swallow. It is not necessary to administer more than 10 grs. of quinine at a dose, even in the worst cases.

I very well recollect one case, in which the jaws were fixed, and the patient wholly unconscious. After resorting to extreme remedies without success, I introduced a tube through the nasal passage into the stomach, and passed through it brandy and quinine, and had the satisfaction soon of seeing my patient rapidly rally. I have treated many cases of congestion, and have been surprised at the certainty of relief when suitable remedies were perseveringly persisted in.

The appearance of the eye is a certain index to the absorption of malarial poison. Any intelligent physician, by looking through a family, can tell those that soon will be sick from the peculiarly dilated appearance of the pupil.

Progress of Medical Science.

THE ADMINISTRATION OF CHLOROFORM.—Professor Warren Stone, M.D., of New Orleans, La. (*Clinical Memoranda*), is in the habit of giving a stiff toddy, of brandy or whiskey, several minutes before administering chloroform, so that it may absorb during the time of inhalation. This not only serves to keep up safe action of the heart, but the patients seem to go under its influence much better than without it. An ounce or two of brandy is generally given by the stomach, if there is nothing to contra-indicate it—and, if so, a half-drachm dose of carb. ammonia by enema. This latter is always easily retained; and when given just as the patient begins to become insensible, it is gratifying to observe feeble subjects come from the operating table, after having passed through a severe ordeal, with a better pulse and better general condition than when they went on it.

In some cases chloroform may be mixed with equal parts of alcohol.

RUPTURE OF PERINEUM.—J. F. Miner, M.D., Buffalo, N. Y. (*Buffalo Med. and Surg. Journal*), advocates an early treatment of ruptured perineum immediately after injury. If laceration is extensive, quilled suture introduced deeply, and adjusted properly, will generally suffice to insure complete union. Stitches may be taken in less severe lacerations, which are also of incalculable service in insuring complete restoration of parts. It is remarkable how, without anæsthesia, sutures may be introduced without pain immediately after the laceration, the injury and strain upon the parts having in a great degree destroyed the usual sensibility, so that little, if any, complaint will be made.

THE VECTIS.—Dr. Robert Barnes (*British Medical Journal*), has pointed out the best method of employing

the vectis, both as a lever and a tractor. He directs that it should first be applied over the occiput, and that part drawn down until it is lower than the vectis; next, the vectis should be applied posteriorly over the forehead, and that brought down lower than the occiput; and on, until at last the head is brought down through the outlet of the pelvis. But the first result of these procedures is apt to be the conversion of the ordinary presentation of the vertex into one of the occiput, which is not nearly so favorable. The same thing is apt to happen when the forehead has been depressed by the vectis, so that it may well be questioned whether we do not impede nature more, in these cases, by rendering the presentation less favorable, than we assist her by our extractive efforts with the vectis.

Dr. Scoayne, of the Bristol Hospital, is convinced that when the head is arrested in its course, and instrumental interference has been decided upon, it is better to use the forceps at once. He now never uses the vectis, except to correct mal-presentations.

PUERPERAL ECLAMPSIA.—Dr. C. C. F. Gay, Buffalo, N. Y., in an extended paper on "Puerperal Eclampsia," believes that the use of opium has not been pushed to that extent its merit deserves; a woman in eclampsia will tolerate enormous doses of this narcotic, and she will be benefited just in proportion to the liberality with which this drug is administered. While convulsions last, morphia gr. j. is not too much to use hypodermically every half hour. The brain of the woman can tolerate this amount of opium better than she can tolerate convulsions. Too much efficacy has been accorded the use of chloroform. Its effect is speedy and powerful, but not permanent and abiding.

Croton oil should not be excluded from the list of invaluable remedies. It can be more conveniently administered than any other cathartic. Two drops placed upon the tongue will be quite sure to operate speedily. If blood-letting is necessary, a sufficient quantity should be extracted to make an impression upon the circulation, and resort to it as early as possible.

TREATMENT OF CHOLERA MORBUS.—A medical practitioner writes to the *Medical and Surgical Reporter* as follows: "I am now, and have been for the past two years, treating cholera morbus, cholera infantum, and colic, also the various forms of diarrhœa in adults and children, attended with pain, with salt-water injections, with the best of success." He uses but very little medicine in these affections, and in the majority of the cases none at all.

EARLY HIP DISEASE; ARTICULAR OSTITIS.—Thomas Bryant, Assistant-Surgeon to Guy's Hospital (*Medical Times and Gazette*), publishes seven cases of early hip disease occurring in children between the ages of three and nine years, which were successfully treated without splints or weights. In all, pain existed of an aching character. This was fixed, in the majority of cases, in the hip; in several it was also felt in the knee, and in one in the outside of the thigh. There was marked limping on an attempt to walk, and apparent elongation of the limb from the tilting upwards of the pelvis on the sound side. In all, attempts at movement excited spasm in some one or more of the groups of muscles around the joint, in some the flexors acting the more powerfully, in one the adductors. In no single example was there any perceptible enlargement or swelling about the joint, and in all pain was excited by the interarticular pressure test. These symptoms clinically may be accepted as true indications of articular ostitis of the bones of the hip-joint.

Splints or weights were not employed, nor required; for the joint, as a joint, in each case was sound, and its natural movements, as far as the patient felt disposed, did no harm, but rather good, by keeping the muscles in health. Any interarticular pressure upon the bones was prevented. No standing was allowed under any pretence, and no walking. Fomentations to the part were ordered, and tonics given. These principles of treatment ought always to be observed.

THE EARLY USE OF FORCEPS.—Wm. M. Wallace, Chairman of the Erie County Medical Society, Penn., says that in his county the early use of forceps in severe labor is much more common than heretofore; in his hands it lessens the number of still-births, saves pain, avoids the bruising of soft parts from force that presses without relieving, and, by inclining the head forward, lessens the danger to the perineum. He inquires whether ergot does not endanger the uterus more than skilfully used blades.

MANAGEMENT OF PERTUSSIS.—In Newark, N. J., most of the physicians send their patients to the purifying room of the Gas Works to spend an hour or two daily, the inhalation of the fumes arising from the gas passing through lime having the effect of moderating and shortening the disease. In cases where it is inconvenient to visit the works, carbonate of lime has been procured therefrom, and placed in vessels about the room in quantities sufficient to impregnate the atmosphere, and has been attended with good results. When access to gas works cannot be had, the Hydro-Phenyl, which, when unpurified, is called Benzine, is used as recommended in *Braithwaite;* and the same results obtained as from a residence in the purifying chambers of the Gas Works. Ten or fifteen drops are given in a little water to a child every day, and as soon as it is asleep a few drops are sprinkled on the pillow, so that the smell is diffused throughout the room.—*Trans. Med. Soc. of N. J.*

A GOOD UNGUENT FOR SCABIES.—C. F. J. Lehlbach, M.D., Newark, N. J. (*Trans. Med. Soc. of N. J.*), has employed with decided success, the subjoined ointment in Scabies:—

℞.	Acid. carbol. crystal.	ʒ jss.	
	Flor. sulphur,	℥ ss.	
	Soda sulphite,	℥ ss.	
	Glycerine,	ʒ ij.	
	Cerat. simpl.	℥ ij.	M.

S. Ointment. Take a bath, or wash all over, morning and evening, and then anoint thoroughly wherever the disease exists. The acari are generally killed in three to five days.

A READY APPLICATION TO THE EYE.—Elastic sheets of Calabar Bean and gelatine—made by suspending extract of the Calabar Bean in gelatine—are useful applications to the eye. The dose contained in a small piece should be 0.010 gr. of the bean, or 0.0005 gr. of the extract.

PREGNANCY WITHOUT PENETRATION.—Dr. John H. Packard, of Philadelphia (*Am. Journal of Obstetrics*), recently related the history of a case of vaginismus, in which the woman became pregnant, although penetration had never been accomplished. No examination could be made, on account of the violent spasmodic action of the muscles of vagina and vulva. Her condition was partially relieved by palliatives, but she aborted at the sixth month.

INVERSION OF THE UTERUS REDUCED BY A CAOUTCHOUC TAMPON.— A case of chronic inversion of the womb replaced by a *Caoutchouc Tampon*, is reported by Drs. Schroeder and Veit, in the *Berlin Klin. Wochenschrift*, proving that continuous pressure deserves the most confidence in cases of inversio uteri.

A Constant Pathognomonic Indication of Measles.—During a recent discussion on measles, held at the *Société médicale des hôpitaux*, M. Girard called the attention of his hearers to the fact of the existence of a peculiarity important in a diagnostic point of view. This was the appearance in all cases, without exception, of a red punctuation upon the soft palate, at least four, five, or six days before the appearance of the eruption externally.—*Gaz. Hebdom.*

Iodine Gargle.—M. Cullier (*Union Médicale*) advocates the following in syphilitic ulceration of the mouth and throat, and in œzena: Iodide potassium 1 part, honey syrup 30, and decoction of barley 120 parts.

Further Experiments with Chloral.—The Paris correspondent of the *Lancet* writes as follows: Chloral is still the great scientific attraction here, and I believe there is scarcely an hospital physician, or surgeon, or chemist, in Paris, who is not more or less experimenting therewith at present. Every week fresh results of experiments are brought forward, either at the Academy of Medicine or that of Sciences; and indeed the last sitting of this latter Society was unusually interesting from a medical point of view, on account of the variety of communications on the subject *à la mode*. The results of the meeting were much in favor of Liebreich's views of the properties of chloral, and of its transformation into chloroform when once in the human organism. M. Bouchut now declares that chloral is a powerful sedative of the nervous system, motor as well as sensitive; that it must be employed in a crystallized form, and perfectly pure; that it must be administered beyond doses of five grammes to adults, and one to two to children; that it is dangerous to employ it in subcutaneous injections; that it is more speedily absorbed by the rectum than by the stomach; that its action is that of chloroform, into which it is transformed within the human organism; that it brings on sleep, sometimes accompanied by a not unpleasant intoxication, seldom by hyperæsthesia, and most frequently by anæsthesia, which is more or less complete, according to the strength of the dose.

There is one point which M. Bouchut seems to have investigated with peculiar care—I mean the therapeutical properties of chloral; and as this part of the subject has been less ventilated than that of the physiological effects of the substance, I subjoin, in M. Bouchut's own words, the results of his practice: "As a therapeutical agent, hydrate of chloral is *the* sedative of violent pain in gout; of the atrocious sufferings occasioned by nephritic colic and dental caries; in a word, *it is the very best of anæsthetics administered through the stomach*. Lastly, it is the quickest and most efficacious remedy in intense chorea, when it is required to abate speedily a condition of restlessness which is in itself a peril to the life of the patient."

Chlorate of Potassa in Abortion.—C. D. Palmer, M.D., of Cincinnati (*Med. and Surg. Reporter*), maintains that the reputation of *Chloride of Potassa* as a preventive of abortion, is established. It is best adapted to cases of threatened abortion, depending upon diseases of the placenta. Its use should be long continued, in doses of iij.-xx grs. three times daily. The experiments of Davy and others proved, that when an alkaline salt was brought in contact with the blood, an arterial appearance resulted.

Vaginal Suppositories.—Dr. Meadows, of London (*Med. and Surg. Reporter*), recommends that vaginal suppositories be made of neutral soap and pulverized althæa root, in place of cocoa butter. He uses three parts of the former to one of the latter, and regards the materials as cleaner, more emollient, and facilitating the absorption of whatever is incorporated with them, while the vagina fully absorbs greasy articles.

Infantile Syphilis.—Prof. J. Lewis Smith, M.D., N. Y. (*Med. and Surg. Reporter*), prescribes the following formulæ in infantile syphilis: ℞. Hydrarg. cum creta gr. iij.-vj., Sacchari alb. 3 j. M. Divide into 12 powders. One to be taken three times daily. ℞. Hydrarg. chloridi corrosivi gr. i.-ij., Syr. Sarsaparillæ comp. f. ʒ ij. Aquæ f. ʒ viij. M. One teaspoonful ter die. Mercury, in whatever form employed, should not be discontinued entirely till several weeks after the syphilitic symptoms in the child have disappeared. When the mercurial is omitted, tonics are often required. The preparations of cinchona are useful in cases, as are also those of iron. The liquor ferri iodidi is especially beneficial in this class of cases.

Chloroform in Chill.—H. M. Beer, M.D., Valparaiso, Ind. (*Med. and Surg. Reporter*), administers chloroform in cases of chill, and his patients seem to do well without quinine or any other remedy.

He alludes to a patient who had suffered with chill and fever, except as relieved by the use of quinine, for years. When first seen, he was shaking severely, and Dr. B. led him to one of the drinking fountains of the Galt House, Louisville, and gave him two drachms of chloroform in a little water, all of which he swallowed. He immediately retired to his bed and fell asleep, without any sign of the chill remaining. After four hours of sound and quiet sleep, he awoke without fever, and has since been quite well.

Chloroform, given internally in hypnotic doses over congestion and chill, he believes opens a new era in therapeutics, and gives hope of important results, not only in the treatment of fever, but in all diseases dependent upon congestion, and upon central and spinal irritation.

Phytolacca Decandra in Cancer.—O. Crook, M.D., of Dayton, Ohio (*Med. and Surg. Reporter*), in presenting Poke-root to the profession as a successful remedy in the early stage of cancer, is aware of the prejudice that he will encounter in the minds of many who regard the disease as incurable, or at least only a subject for excision, or the use of escharotics. He has in his possession statistics, obtained in several years' practice in the treatment of cancer, phthisis, and scrofula, sufficient to satisfy the most incredulous that cancer and tuberculosis are all of one and the same family, differing only, under different circumstances, in their development.

With the steady and persistent administration of the phytolacca decandra, in the first stages of cancer, he has in many cases seen the tumor absorbed, and a cure effected without the knife or escharotics.

His method of preparing and using the remedy, is as follows: ℞. Phytolaccæ Radicis, ʒ ij.

Alcohol dilute, or pure whiskey, Oj.

Let it stand 14 days and filter.

Of this the patient may take, after eating, from 15 drops to a tablespoonful, as will be borne by the stomach. He has derived the most benefit from its use when pushed until its emetic effect is produced, and then continued the dose that the stomach would bear without excessive nausea. The effect of the medicine will generally be apparent in the space of two weeks—first in relieving the pain so significant of cancer, and in arresting the growth of the tumor, and in the general improvement of the health of the patient.

If, after administering the medicine for a few weeks, its beneficial effects are not manifest, it will be well to

desist for a short time, and then commence as at first, when better effects will be produced. He has obtained favorable results from the use of injections of the tinct. iodine, from five drops to a drachm, and the subsequent application of the pulverized or grated Poke-root, in the form of a poultice, intermitted with the use of emollient poultices of carrots, or bread and milk.

LIATRIS SQUARROSA.—I. J. M. Goss, M.D. (*The Journal of Materia Medica*), states that this remedy, called Rattlesnake's master, acts as an expectorant similar to senega, but as a remedy in gleet, gonorrhœa, and leucorrhœa, it acts with the most certain promptitude. Its specific tendency is to the mucous membranes, especially to that of the urethra, vagina, and uterus.

He has recently tried it in vaginal leucorrhœa, in which it arrested the disease promptly. This remedy is reported that other practitioners may try it, and communicate the results in medical journals.

HYDRASTIN IN GONORRHŒA.—D. Calvin, M.D., Clyde, N. Y. (*Journ. of Materia Medica*), writes that he has used the resinoid extract, hydrastin, for the past seventeen years, as an injection in cases of gonorrhœa, and has never failed more than 3 or 4 times in effecting a radical cure with that remedy alone. He very rarely gives anything internally, not even copaiba. Occasionally, in the more chronic cases, when he has not had an opportunity of first treating the case, he has added to the infusion one grain sulphas zinci to the ounce.

An infusion is made of the following strength: One drachm to three gills of boiling water; cover the vessel, and let stand until cold.

He has never known a case that was not more or less relieved after each injection. Two drachms are thrown in four times daily, the patient urinating each time immediately before injecting.

He concludes, that the success of the remedy in this disease proves the theory advanced by S. Key, that gonorrhœa is nothing more nor less than a catarrhal disease. Hence, by the tonic influence of this remedy, the tone of the vessels of the urethra is improved, and a cure surely follows.

REMOVAL OF FATTY TUMOR—NO SUPPURATION.—Dr. Gregory, St. Louis, Mo. (*Med. Archives*), recently reported to the *St. Louis Medical Society* the removal of a fatty tumor from the scapula, the site of which was dressed with a solution of chloride of zinc, ʒj. to ℥j. Five days after there was no suppuration. At the third dressing there were a few drops of pus at a point of the wound at which there was a superabundance of tissue. Dr. Eve expressed astonishment at no suppuration following the application of so strong a solution of the zinc. Dr. Gregory thought, accepting as correct the views of Cohnheim as to the identity of pus corpuscles and the white corpuscles of the blood, a rational explanation of the prevention of suppuration is afforded.

SUNSTROKE SUCCESSFULLY TREATED BY BLOOD-LETTING.—W. W. Hewlett, M.D., Babylon, N. Y. (*N. Y. Med. Journal*), records a case of sunstroke successfully treated by blood-letting. The patient, 30 years old, when first seen was delirious, with pulse 86 per minute. The ice-cup was applied, and strong mustard poultices to the lower extremities, and codeia given. Twenty-four hours after the attack the symptoms were intensified, and he abstracted 18 oz. of blood, and ordered bromide of potassium in 15 grain doses, three times daily, which was continued for about two weeks. Since he was bled he has not experienced a single untoward symptom. He believes that, in this case, blood-letting was both advisable and beneficial.

TREATMENT OF BUBO BY COMPRESSION.—Dr. C. P. Judkins, of Cincinnati, Ohio (*Cin. Lancet and Observer*), as chairman of the Section on Venereal Diseases of the Cincinnati Academy of Medicine, recently read the report on the Treatment of Bubo, and recommended that in all cases of simple or inflammatory bubo, and in buboes arising from chancroidal sores previous to the appearance of pus, compression be made by means of adhesive plaster; 1st, because it is clean; 2d, because it permits of freer motion of lower extremities than the spica bandage; and, 3d, because the surgeon is justified in preventing suppuration in all forms of Adonitis.

APOMORPHIA.—Drs. Matthissen and Wright, of St. Bartholomew's Hospital, London, have produced a new base, which is a non-irritant, and powerfully anti-stimulant, called *Apomorphia*. A very small dose produces vomiting and considerable depression, but this soon passes off. Vomiting is produced in from 4 to 10 minutes by one-tenth of a grain hypodermically injected, or one-quarter of a grain taken by the mouth.

OIL OF SASSAFRAS, ITS INFLUENCE UPON TOBACCO.—Dezin Thompson, of Nashville, Tenn. (*Cin. Lancet and Observer*), states that the injurious effects of tobacco are speedily removed and also prevented, by oil of sassafras. By moistening the end of the cigar with the oil, or mixing the cut tobacco with sassafras bark, together with a large dose of extract of hyoscyamus, a delightful flavor is produced, without unpleasant effects.

Might not the oil, by hypodermic injection, prove an excellent remedy against tobacco poisoning?

TO ADMINISTER QUININE.—A. J. Gardner, Grand Rapids, Wood Co., O. (*Cin. Lancet and Observer*), has recommended to the physicians in his section, a syrup of liquorice as a vehicle for administering quinine, as follows:—Fluid extract liquorice, ℥ vj., simp. syrup, ℥ x.; to a dose of 2½ grs. of quinine, a teaspoonful of the syrup mixed. This effectually destroys the bitter taste of the medicine, and the physician knows exactly what amount of quinine he is giving, but with the *advertised sweet quinine* he does not.

PERFORATION OF THE BLADDER BY A CALCULUS.—Dr. Mendel (*Virchow's Archiv.*) reports the expulsion of a urinary calculus, measuring 8 centimetres in its long diameter, and 6½ transversely, from the bladder into the vagina, during a violent cough. The patient was a lady, 62 years old. The calculus was phosphatic, and weighed 173 grammes. Upon reaching the vagina, it was not expelled immediately, but was detained in that cavity six months. A new deposit was formed around it.

ANIMAL VACCINATION AND VACCINAL SYPHILIS.—M. Latour, in the *Union Medicale*, speaks of animal vaccination and vaccinal syphilis as follows: 1. The degeneration of the Jennerian virus is far from being proven. 2. There does not exist a single authentic example of vaccinal syphilis, properly so called. 3. The excessively rare cases of syphilis inoculated by vaccination are explicable by conditions which completely exonerate vaccine virus from all injurious mixture. 4. A large number of pretended examples of syphilis following vaccination justify the most serious doubts as to the accuracy of the diagnosis. 5. Animal vaccination, simply as another source of lymph, is deserving of encouragement, although it possesses no real or sensible advantage over vaccination from arm to arm.

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THE WOMAN QUESTION AGAIN.

IN another column is a communication from our correspondent in Philadelphia, in regard to the recent medical scandal in that city, in which some new and additional facts are presented. To these we take occasion to call the attention of our readers, on behalf of the medical students who were mixed up in the affair. According to the article in question, the whole blame of the occurrence is laid upon the managers of the hospital, for issuing tickets of admission to the ladies without first asking the consent and co-operation of the attending physicians and surgeons. If it be the truth that permission to attend the clinics was granted in the manner as stated,—and we do not pretend to doubt the assertion of our correspondent,—the managers were decidedly in the wrong. Their proceeding was not only presumptuous, but impertinent and insulting. Decidedly the best way would have been to have canvassed the matter with becoming deliberation, to have sought the opinions of those who were abundantly able to give them; and if their consent to the measure had been obtained, to have in a proper and becoming way asked their support. The managers of such an institution, who look to its welfare and its reputation as a clinical school, have no right to take such an independent step. The staff of any hospital certainly does work enough for it to be entitled to the expression of an opinion upon such a momentous question as the one before us. That the staff were denied such a privilege would seem to open the suspicion that there was a clearly premeditated act of hostility on the part of the directors against them. In the face of such an action it was to the last degree farcical for one of the managers to lecture the students upon their duties. It was hardly to be supposed that they were prepared for such advice as was given them on that occasion, and one can scarcely wonder that it was not as well received as it might have been. If any explanation that was necessary had been left to Dr. Da Costa, who is deservedly popular with the students, we doubt not that much of the indignation and ill-feeling among them would have been prevented; as this, however, was not the case, we have to deplore the result the more.

Our correspondent truthfully remarks that the profession as a body have always been strongly opposed to the practicability of men and women studying medicine together. In this opinion we ourselves humbly share. On a previous occasion we entered our protest against the manner in which the students were said to have met the question; and claimed, as we still claim, that no argument can be refuted by indecent and ruffianly behavior. Nothing weakens the truth of any cause so much as a chance for one party to call itself a martyr. Such an opportunity has seemingly been given to the female medical students, and the presumption is that they will use it. The mistake was in not permitting the theory of promiscuous clinical teaching to work its own solution in a practical and natural way; in not allowing the notion to die a natural death. No matter what convictions may exist in our minds we should always be ready to decide according to the evidence; and the very assumed strength of our position should make us the more ready and willing to answer every opposing argument. From what we can learn, however, the students of Philadelphia were far from acting upon such a principle. But this is by the way.

On the point of practicability of mixed medical clinics the profession of Philadelphia, including teachers, hospital attendants, and practitioners at large, have given the following reasons for their conviction, which, we doubt not, will accord with the views of the profession throughout the country:—

"Clinical instruction in practical medicine demands an examination of all the organs and parts of the body, as far as practicable; hence personal exposure becomes for this purpose often a matter of absolute necessity. It cannot be assumed by any right-minded person that male patients should be subjected to inspection before a class of females, although this inspection may without impropriety be submitted to before those of their own sex.

"A thorough investigation as well as demonstration of these cases, so necessary to render instruction complete and effective, is by a mixed audience precluded; while the clinical lecturer is restrained and embarrassed in his inquiries, and must therefore fall short in the conclusions which he may draw and in the instruction which he communicates.

"In many operations upon male patients, exposure of the body is inevitable, and demonstrations must be made which are unfitted for the observation of students of the opposite sex. These expositions, when made under the eye of such a conjoined assemblage, are shocking to the sense of delicacy, and entail the risk of unmanning the surgeon—of distracting his mind and endangering the life of the patient. Besides this, a large class of surgical diseases of the male is of so delicate nature as altogether to forbid inspection by female stu-

dents, yet a complete understanding of this particular class of diseases is of pre-eminent importance to the community. Moreover, such affections can be thoroughly studied only in the clinics of the large cities, and the opportunity for studying them, so far from being curtailed, should be extended to the utmost possible degree.

"To those who are familiar with such cases as are here alluded to, it is inconceivable that females should ever be called to their treatment.

"By the joint participation on the part of the male and female students in the instruction and in the demonstration which properly belong to the clinical lecture-room, the barrier of respect is broken down, and that high estimation of womanly qualities which should always be sustained and cherished, and which has its origin in domestic and social associations, is lost by an inevitable and positive demoralization of the individuals concerned, thereby entailing most serious detriment to the morals of society."

A manifesto to meet these objections has been published by the Faculty of the Woman's Medical College, but it falls so far short of the mark that it may be received in the light of an endorsement. It is admitted by them that in all special diseases of men and women it is not expedient that students of different sexes should attend promiscuously, neither is it proper to have such mixed classes present on any occasion when any embarrassing exposure becomes a necessity. There would then seem to be no special cause for disagreement, and it would be the easiest thing in the world to reconcile both opinions by separating the sex of the students —were it not for the following clause in their protest, which we quote in full:—

"In nearly all of the great public hospitals, however, by far the larger proportion of cases suited for clinical illustration—whether medical or surgical—is of those which involve no necessary exposure, and are the results of diseases and accidents to which man and woman are subject alike, and which lady physicians are constantly called upon to treat. Into these clinics women also—often sensitive and shrinking, albeit poor—are brought as patients to illustrate the lectures, and we maintain that wherever it is proper to introduce women as patients, there also it is but just and in accordance with the instincts of the truest womanhood, for women to appear as physicians and students."

We fail to see, however, how any given case or sets of cases of even general diseases could be introduced under the assumption that no exposure would be necessary, or that none of the necessary questions that might come up in the course of a thorough and conscientious examination would be unembarrassing in the presence of the opposite sex. Especially would this be true with female patients, notwithstanding it might be "in accordance with the instincts of truest womanhood" for females to be present. After all, then, this "saving clause" is nothing more than a bungling paradox, an effort to beg a question which can be impartially settled in but one way. We admit that science is impersonal, and a physician, in case of any accidental exposure in presence of even a female medical student, should always behave with becoming decorum and decency, but we fail to see the necessity of having such occurrences the rule. While we claimed that a class of medical students, who should hoot and jeer at the exposure of a male in presence of the opposite sex, behaved in a ruffianly manner, we uttered the sentiment of the profession at large; but we did not, neither can we, claim that science must be the all-powerful excuse for a "few earnest women students" who may defiantly choose to unsex themselves. Science has its necessities, and as its humble votaries we must accept them, but we fail to see how the constant admixture of sexes in its own worship is one of them.

We do not wish to be understood as denying females the opportunities of acquiring clinical instruction, provided the sexes are kept separate. If this can be done in any public hospital, no one would object to the measure, as no one would in the long run be harmed. But in view of this being for the present impracticable, the best that any female medical college can do is to develop its own clinical resources to the utmost, and found a hospital of its own for such special cases as females are apt to be called upon to treat.

Reviews and Notices of Books.

THE MEMBRANA TYMPANI IN HEALTH AND DISEASE. Illustrated by Twenty-four Chromo-Lithographs: Clinical Contributions to the Diagnosis and Treatment of Diseases of the Ear, with Supplement. By DR. ADAM POLITZER, of the University of Vienna. Translated by A. MATHEWSON, M.D., and H. G. NEWTON, M.D., Assistant Surgeons of the Brooklyn Eye and Ear Hospital, &c. New York: William Wood & Co., 61 Walker St. pp. 183.

DR. POLITZER is very well known to the scientific world by his method of injecting air into the cavity of the tympanum, a means of treatment which has greatly improved the general prognosis of aural catarrh, especially that of young persons, where the use of the Eustachian catheter is not always practicable. He is, however, not so well known in our country for his earnest work as an otologist, which has done much for the scientific advancement of aural medicine and surgery, as his many contributions entitle him to be. We are very glad to welcome, in an English dress, illustrated by the original chromo-lithographs, this admirable brochure on the membrane of the drum. It cannot fail to be received with pleasure by that rapidly increasing class of practitioners who are anxious to know what is to be known about that much abused and neglected organ, the ear.

In the introduction the author shows that he is indebted to the "profound researches of von Tröltsch," founded upon "observations made upon patients by means of an essentially improved method of examination," for the zeal with which he began his studies. Dr. Politzer has avoided the perhaps unavoidable error of the lamented Toynbee, of laying too much stress on mere morbid appearance of ears to which no history was attached, for, in his opinion, "the diagnostic significance of any condition of the membrana tympani can only be correctly estimated and established by a comparison with the post-mortem condition."

The anatomy of the membrane receives a full and clear description, with a detailed account of its color, lustre, cone of light (triangular light spot), inclination, and curvature. Those who have not already studied this remarkable structure will be surprised at the amount of instruction and interest an investigation undertaken under the guidance of this monograph will elicit. The entrance of the optic nerve into the retina, as seen by the ophthalmoscope, does not offer more variety in appearance to the careful observer than this delicate and important membrane; a structure of really more importance as regards life and health than the cornea, although the latter is so tenderly looked upon by practitioners, while the former is treated with indifference in the face of the fact that thousands of people all over the globe are dying from neglect of suppurative processes in and contiguous to this part.

The various kinds of opacities in the membrane are fully discussed. Perforations and ruptures are also studied. Numerous wood engravings assist in illustrating synechiæ and so on. Valuable clinical instruction is given from cases, and the treatment of chronic catarrh, and of "purulent catarrh," a name we can see no propriety in, receives full consideration.

To the mobility of the membrane during the Valsalvian experiment, during swallowing and respiration, as well as to the pulsatory movements, four pages are devoted.

This edition has the advantage over the German one of containing a supplement with much valuable material on the accumulation of serum in the tympanic cavity, on a method of preventing the closing of artificial perforations (by the use of a rubber eyelet), and other matter of value.

We are surprised that Dr. Politzer considers a double perforation of the membrana tympani as extremely rare. Practitioners in America have often seen the membrane perforated in two places.

The editors have made a very readable book by their careful and conscientious translation. The publishers have exceeded themselves in the good quality of the paper and the generally fine appearance of the volume. The day may not be so far off, as we often fear it is, when American medical books shall look as well as those printed in England.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, Nov. 27, 1869.

DR. L. A. SAYRE, PRESIDENT, in the Chair.

(Concluded from page 474.)

FIBRO-CYSTIC TUMOR OF UTERUS SUPPOSED TO BE OVARIAN.

DR. C. C. LEE exhibited a fibro-cystic tumor of the uterus, supposed to be ovarian, and accompanied it with the following history:

A single woman, of Irish birth, a cook by occupation, stating her age as 45 (but looking at least five years older), was admitted to St. Vincent's Hospital, October 23, with the following history. Two and a half years ago she observed a swelling of the right foot and leg, and, four months afterwards, noticed that the abdomen was steadily increasing in size. The latter symptom was accompanied by intestinal pain and occasional diarrhœa, which resisted all efforts at treatment. At this time the existence of an ovarian tumor was suspected by her physician, but no special treatment was directed to it. In July last, while a patient of the Northern Dispensary, she was tapped by two of the surgeons of that institution, and 10½ quarts of a thin chocolate-colored fluid were drawn off. In a fortnight the cyst began to refill, and continued slowly to do so until the date of her admission to the Hospital. I am informed that all the physicians present on this occasion concurred in the opinion that the tumor was ovarian, and the patient was subsequently urged by them to have it removed, but declined.

On entering St. Vincent's Hospital her condition was as follows:—The heart and lungs were healthy; urine non-albuminous and normal; appetite good, and bowels moderately regular. The face and complexion were pale and exsanguine, but the pulse full and very strong.

The circumference at umbilicus was 43 inches; from ensiform cartilage to umbilicus 11 inches; from umbilicus to symphysis pubis 9½ inches; from umbilicus to anterior superior spinous process on either side 10½ inches. The uterus was somewhat elevated, but seemed normal in its relations, admitting a sound to the apparent depth of 2½ inches; freely movable on the sound without imparting the slightest motion to the abdominal tumor. The abdominal walls were also freely movable over the cyst in all directions.

The menstrual discharge had ceased about a year previously; but six months before her admission to the Hospital had reappeared, and recurred scantily every three weeks. No profuse flow had at any time existed.

Upon these data the diagnosis of ovarian cyst, probably unilocular, and free from serious anterior adhesions, was made; a consultation confirmed this view of the case, and after the risks and chances of extirpation were fully explained to the patient, she decided to have the tumor removed. After a few days of preparation, during which every effort was made to get the skin into good condition, the operation was performed on November 2, 1869, in presence of the surgical staff of the Hospital and of a number of medical gentlemen, Dr. Newman administering chloroform, and Drs. Thebaud, Elliot, and Peaslee (to all of whom I am under great obligation), assisting me. The cyst was exposed in the usual manner, and, contrary to my expectation, was extensively adherent to the parietal peritoneum.

These adhesions were readily separated, and the contents of the cyste vacuated by Dr. Thomas's modification of Wells's trocar, the umbrella-like slide of this instrument holding the walls of the flaccid cyst with perfect security. About the same quantity of a thin, brownish fluid was drawn off as on the previous occasion in July.

As the cyst was emptied slight traction was made, in the hope that no posterior adhesions existed, but the unwelcome fact was now developed that the whole posterior and lower surface was closely adherent to the intestines and the pelvic organs. In fact, no pedicle at all existed. At this juncture the operation had been carried too far to be abandoned, and no course seemed open but to detach such of the intestines as could be separated, and to cut away the cyst-wall from the uterus and bladder. In the former effort a portion of the small intestine was lacerated by my finger—a misfortune which, added to its other features, seemed to make the case hopeless in advance. The torn gut was held by an assistant while as much more of the cyst was cut away as could be detached. The hemorrhage from the thickened cyst-wall was arrested by persulphate of iron, three silk ligatures (cut short) being applied to the larger vessels, and the wounded intestine was then closed with a fine silk continuous suture, the lips of the wound being carefully everted, and the suture cut short at each end. The peritoneal cavity was

rapidly cleaned of all blood and fluid, and the external wound closed with the silken wire, the deep stitches including the peritoneum. A small amount of brandy and a hypodermic injection of 20 min. Magendie's solution were then administered, and the patient carefully removed to her bed, the operation having lasted nearly two hours and twenty minutes. Her exhaustion was very great, but reaction slowly followed, the pulse being 64 at the conclusion of the operation, and 84 with increased volume four hours afterwards. Injections of beef tea and brandy were given every three hours, and the hypodermic injection repeated once during the night; slight vomiting occurred, but the patient slept about four hours, and in the morning was better; pulse 76, and moderately full; mind clear; no abdominal pain. The same treatment was continued during the day, and no drawback occurred until evening, when the pulse began to sink rapidly, and severe abdominal pain appeared for the first time. This was referred to the epigastrium and left iliac region, where lay the wounded intestine. In this condition the patient sank slowly, and died 31 hours after the operation. The autopsy, 17 hours after death, showed general incipient peritonitis, most marked on the left iliac and pelvic regions, inflation of the small intestines, and about 6 oz. of turbid serous fluid in the pelvic cavity. No clots or other evidence of secondary hemorrhage existed. The wounded intestine was securely closed, but the wound and suture showed no covering of lymph. The pelvic organs were so moulded together that the bladder, uterus, and uterine attachments were removed *en masse;* a dissection of these showed no trace of either ovary, the left broad ligament being agglutinated to the cyst-wall. The body of the uterus was extremely hypertrophied, measuring full six inches from external os to fundus, and the internal os was so contracted as to resist the passage of the sound, and thus to mislead me into the belief that it had passed completely to the fundus. A semi-solidified cystic mass (possibly a fibroid undergoing softening) was attached to the fundus posteriorly, and included within the walls of the main cyst, which are seen to spring directly from the fundus of the uterus. The other abdominal organs seemed to be healthy.

Two very manifest errors were committed in the management of this case, and it is for the purpose of calling attention to these,—not as an example, but as a warning,—that I have presented it to the Society. In the first place, the irregular occurrence of the menstrual flow, after its complete cessation, should have attracted closer attention to the uterine condition, and doubtless would have done so had not the patient's assertions as to her age persuaded me she was just passing her climacteric period. Secondly, my management of the uterine sound was clearly defective, and, although two sounds of different calibre were used and on two separate occasions, an expert would certainly have detected the abnormal condition which escaped my less experienced touch. In other respects there was no single symptom which indicated a condition other than ovarian dropsy, and by all who examined her the patient was regarded as a proper subject for ovariotomy. In corroboration of this I will simply add that four cases, precisely analogous to the preceding, are recorded by Spencer Wells, two by Koberlé, two by Baker Brown—all fatal.

A microscopic examination by Dr. Wm. B. Lewis showed no trace of either ovary—the left being probably obliterated by the development of the cyst, another left-hand ligament displaced upwards, while the right ovary escaped detection and was probably cut away in the dissection. The point upon which the diagnosis is based is the existence of the elongated spindle-shaped cells, peculiar to the muscular fibre of the uterus, in the cyst-wall adjoining its uterine attachment, and for some distance above that point.

COLLOID CANCER OF PERITONEUM AND OF THE OVARIES.

DR. GEO. T. ELLIOT presented a specimen of colloid cancer of peritoneum and ovaries, and read the following account of the case from the notes of Dr. Stephen Pierson, House Physician, Bellevue Hospital.

Louisa A., age 36, married, native of New York, came to Bellevue Hospital on the 18th of November, 1869, from the interior of the State, seeking relief from a large abdominal tumor. Her general health was excellent, appetite and digestion good, bowels regular, menstruation normal; no hereditary predisposition to phthisis; one sister died of "uterine disease;" no physical signs of pulmonary or cardiac disease, and nothing in her history, nor examination of urine, pointing to Bright's disease. Three years before admission, and three (3) after the birth of her first child, she was suddenly seized with severe pain in her abdomen, and then for the first time noticed that it was enlarged. The enlargement was symmetrical, and no tumor was felt. The pain recurred at intervals, ranging from weeks to months; menstruation was painful for two periods about this time. Abdomen remained without increase in size until August, 1868, when, after overexertion on her part, three (3) gallons of clear, colorless fluid drained from the vagina in the course of seven hours. Abdomen collapsed, and she felt a hard tumor in left iliac fossa. The abdomen, however, began to refill almost immediately, and grew rapidly in size. In April, 1869, after an acute attack of pain, felt a hard lump in right iliac fossa.

On admission, abdominal dimensions as follows:—Girth at umbilicus, 42½ inches; do. at ensiform cart., 34; umbilicus to ensiform cart., 8½; umbilicus to pubes, 10½; umbilicus, right ant. sup. sp. ileum, 12½; umbilicus, left ant. sup. sp. ileum, 11. Fluctuation faintly perceptible all over abdomen—most marked on left side. A tumor, marked by furrows, could be readily felt through the abdominal walls, filling up nearly the entire cavity.

Uterus measured 3½ inches, and was in good position. Posterior wall of the vagina was prolapsed, forming a tumor, outside the vulva, as large as a goose egg, evidently containing, in addition to fluid, some substance which slipped from the grasp, and felt very much like a knuckle of intestine.

Diagnosis of polycystic ovarian tumor was made.

November 19th, 1.30 P.M., Drs. Peaslee, Thomas, and Taylor saw the case in consultation with Dr. Elliot. The diagnosis was confirmed, and preliminary tapping recommended. Dr. Elliot then tapped immediately with an ordinary curved trocar and canula, in the mesian line, below the umbilicus. No fluid followed the withdrawal of the trocar. A syringe was then applied to the canula, and a few drops of jelly-like substance obtained.

An attempt to remove the tumor was unanimously recommended. The patient gladly consented, and 9.30 A M. of the following day was fixed for the operation. Patient was carefully carried to her bed; ol. ricini ℥ ss. given at once, and followed in a couple of hours by an opiate. Her bowels moved four or five times, and she passed an uncomfortable night.

November 20th, 8 A.M. Operation necessarily postponed by the unavoidable absence of Prof. Elliot. 10 A. M. Symptoms of peritonitis manifesting themselves for the first. From this time patient sank rapidly, pain never very severe, readily controlled by small doses of opium, prostration excessive, stimulants and

nutriment given freely, but without effect; patient died in collapse at 8 P.M., ten hours after appearance of first bad symptoms.

Autopsy 24 hours after death. Body very much decomposed. Tumor at the vulva being tapped, nearly a quart of turbid fluid, containing lumps of semi-transparent material, was driven out with some force by the gases accumulated in abdominal cavity. The abdomen being laid open, a large colloid polycystic tumor was disclosed, nearly free from adhesions, and involving both ovaries. A number of semi-transparent masses, varying in size from a pea to an egg, were found, some loose in the cavity, others attached to the peritoneum. Moderate amount of peritonitis. Liver very much decomposed. Lungs and heart normal.

DR. SOUTHACK, Curator for the Hospital, examined it with the microscope. 1st. Section of a large mass found in the longitudinal fissure of the liver, convex surface, made up of cells of an epithelial character, with hardly any stroma. Intercellular substance in some places finely granular, in others transparent; cell elements disproportionately abundant. 2d. Nodule found loose in the peritoneal cavity. On section, found to be made up of regular alveoli, the contents of some of which were transparent, of others well marked epithelial cells. 3d. Tumor itself. Here only irregular transparent lumps and some few cells, the bodies of which had undergone degeneration, while the nuclei appeared intact. Diagnosis—colloid cancer of peritoneum; colloid degeneration of ovaries.

DR. ELLIOT, in reviewing the case, remarked that the patient came to the hospital just after her menstrual period, with her strength good; and it struck him that it was desirable, if anything was to be done in the way of an operation, it should be before she should be debilitated by hospital atmosphere, etc. His examination of the tumor led him to declare that it belonged to the variety cystic-sarcomata. He was in favor of making an exploratory operation at once, tapping the tumor, and, if possible, removing it; and if not, of closing up the wound. In the consultation which followed, the opinions were in favor of preliminary tapping. Dr. Peaslee advocated puncture through the rectocele; while Drs. Taylor and Thomas were in favor of tapping in the usual place, inasmuch as a mass had been discovered floating in the former, which felt very much like a stray loop of intestine, but which, at the autopsy, proved to be one of the free diseased nodules in the peritoneal cavity.

ANEURISM OF ASCENDING AORTA, ETC.

DR. BRIDDON exhibited a specimen of aneurism removed from a man thirty years of age, who died suddenly without a history. On opening the cavity of the thorax, the pericardial cavity was filled with blood, which escaped from the sac of a circumscribed aneurism of the ascending portion of the aorta. The pouch was an inch and a half above the origin of the aorta, was five inches in length and three in diameter, and had an orifice about an inch in diameter. The rupture was at that point which was not protected by adventitious tissue, viz., that portion immediately within the pericardium. The points of interest were the size of the orifice of the sac and its peculiar situation. The heart was very small.

DIVERTICULA OF COLON.—HERNIA OF MUCOUS AND PERITONEAL COATS.—DEATH FROM PERITONITIS.

DR. LOOMIS gave the following very interesting account of a very interesting specimen:

About eleven o'clock of a certain evening, I was called to see a well-nourished Scotch gentleman, sixty-one years of age, who up to that time had enjoyed such good health as never to need a physician. He was of a very costive habit, and it was his custom once or twice a week to take two or three dinner pills on going to bed. On the afternoon preceding the day I saw him he had taken his usual dinner down town at five o'clock, and had walked from his place of business in Vesey street to his home in Twenty-second street immediately afterwards. Just before he reached his home he was seized with a severe pain in the lower part of his bowels; as he entered the house he vomited, and by the time he reached the second floor he had an evacuation. The pain increased in severity until I was called. He was sitting in a chair at the time; his temperature was normal, pulse eighty, full and regular; and there was nothing to attract my attention particularly, except an expression of pain upon his countenance. On examination I found that firm pressure upon the lower part of the abdomen, which was the seat of the pain, did not increase his uneasiness, nor did it relieve it. During the time I was making the examination, he had vomited the food which he had just previously taken into the stomach. The abdominal muscles were not rigid; the abdomen itself was soft over the whole surface, as I examined it carefully for evidences of peritonitis. I came to the conclusion that no peritonitis existed, and ordered that the abdomen be covered with warm fomentations, and that ten drops of Magendie's solution be administered; to be repeated in two hours in case the pain continued.

At five o'clock in the morning—six hours from the time I first saw him—I was called to him again, and found him in a state of collapse. The extremities were cold, pulse small and thready, and almost imperceptible; but intellection was perfect, and there was no vomiting. The respiration was hurried, and the pain, up to a short time before, had increased in severity. In about an hour afterwards he died.

The autopsy was made forty-eight hours afterwards. The body, having been placed on ice, was well preserved. On opening the thorax, the heart was found enlarged; its right side contained fluid blood. The aortic valves were calcified and slightly insufficient. The aorta was dilated, and in a state of atheromatous degeneration. The lungs were normal, with the exception of the left apex, which was the seat of an induration.

On laying open the abdominal cavity, the peritoneal vessels were all injected, and scattered over the surface of the peritoneum were flakes of coagulable lymph. These were most abundant near the sigmoid flexure. The liver, stomach, and kidneys were normal, with the exception of small cysts in the latter. The small intestines being carefully examined were found in the normal condition. On the sigmoid flexure and on the descending colon were diverticula, averaging three-quarters of an inch in diameter, standing out from the peritoneal surface. All these were carefully examined, and were found filled with fæcal matter. On dissection these diverticula seemed to be the results of herniæ of the mucous membrane through the muscular coat of the intestine, the sacs being formed of peritoneum and mucous membrane alone. The most careful dissection of these sacs failed to find any openings in either of them. Their peritoneal surfaces were the seats of the greatest intensity of inflammation, and seemed, in the exclusion of other more probable causes, to be the foci of the general peritonitis.

The specimen is interesting, first, on account of its rarity. I have looked somewhat into the literature of the subject, and this case is the first of the kind that I have been able to find on record. In the second place,

the obscurity of the symptoms of peritonitis is a marked feature. Undoubtedly peritonitis existed when this man's pulse was eighty, and when I first saw him.

MONO-CYSTIC OVARIAN TUMOR.—THE WAY IT ORIGINATES.

DR. KAMMERER presented, on behalf of Dr. J. King Merritt, of Flushing, an unilocular ovarian cyst, which that gentleman had removed by operation from an English lady, thirty-nine years of age, on the 17th inst. She commenced to enlarge during the summer of 1862, was tapped in the summer of 1868, and fifty-two quarts of fluid were drawn off. After this the tumor increased more rapidly than ever, until just before the operation, when she measured, on a level with the navel, forty-two inches. The operation was performed November 17th. The incision was made in the usual manner. There were quite extensive adhesions over the upper and lateral portions of the tumor. The sac, on being tapped, completely collapsed, after discharging thirty pints of a thin syrupy liquid. It was attached to the left ovary, and the pedicle was two and a half inches broad and three inches long. A double ligature of carbolized catgut secured the pedicle, and the whole was dropped back into the abdomen. The wound was finally closed with silver sutures, and compresses applied. No untoward symptom occurred up to the time of reporting the case.

DR. KAMMERER remarked that the tumor was of interest, as illustrating the true and universal mode of development from a single cyst. No trace of any secondary cyst could be found.

RAPID METASTASIS OF MALIGNANT DISEASE.

DR. CARMALT exhibited a cancerous testicle that had been removed the July previous. The wound united by first intention, and everything promised well. Almost immediately a tumor developed in the region of the liver, and terminated in his death three weeks afterwards. The point of interest centred in the apparently rapid metastasis of the disease and its speedy termination in death.

DR. SANDS thought that at the time of the operation there must have been numerous cancerous deposits in the liver, which were, however, too small to be detected at the time.

IRREGULAR DENTITION AND CARIES OF LOWER JAW.

DR. POOLEY, of Yonkers, presented a small portion of the lower jaw removed by operation from a lady thirty years of age. The dentition of the patient had been very irregular; two of the second teeth of the lower jaw had never appeared, and the others that did were so uneven and deformed that they were extracted to make room for artificial ones. About a year ago she received a blow upon her chin, which was followed by considerable tenderness of the part, thought by her, however, to be principally due to pressure of the plate. Soon a couple of sinuses formed, through which dead bone could be detected. An incision was made upon the part, with a view of removing the necrotic tissue. No loose bone was discovered, and the bare portion was removed by the saw and bone forceps. Two of the principal portions that were taken away contained, imbedded in their substance, a partially developed incisor, which, as the result of the irritation caused by the injury, were the foci of the bone disease.

CYSTIC TUMOR OF THYROID BODY.

Another specimen by Dr. Pooley was a tumor, apparently of the thyroid body, removed after death from a woman aged fifty-three years. The first appearance of the growth dated back eleven years; but the increase in size was very gradual, and no special inconvenience was experienced until about four weeks previous to her death, when she began to suffer from the effects of pressure upon the trachea. She then consulted a surgeon of this city, who proposed a trial of electrolysis. After her return, however, to her native place, Yonkers, she became so ill that Dr. Pooley was asked to see her. She was then suffering a great deal from dyspnœa, a croupy cough, dysphagia, and severe neuralgic pains on right side of head, neck, and down right arm to the elbow joint. She was advised to have the tumor removed, but preferred to die of slow suffocation.

On dissecting the growth after death, the sheaths of the carotids were found to be free, and the trachea and œsophagus were pushed to one side and very much compressed. On section the tumor was firm, through its periphery, but its centre was filled with about four ounces of a dark brown grumous fluid. The firm portion of the mass seemed to be purely fibrous, but was very vascular. In answer to the question as to whether a puncture might not have reduced the size of the tumor and relieved the patient, he stated that the walls of the cyst were too firm to allow of any collapse.

DR. SAYRE remarked that he saw the case and proposed to try electrolysis, and she was to have returned to him the following week for that purpose.

DOES THE RESPIRATION BECOME RAPID BEFORE DEATH FROM OPIUM POISONING?

DR. LOOMIS called the attention of the Society to a fact with reference to the increase in the frequency of the pulse and respiration just before death from opium poisoning. At a previous meeting he had taken occasion to refer to a case in point, and within the past few days he had met with another. The patient was poisoned by injection of opium hypodermically; the respiration was at one time down to five in a minute, when, as soon as the signs of death showed themselves, it ran up to thirty.

DR. JACOBI remarked that the experience of Dr. Loomis with reference to opium coincided with what was noticed just before death from diseases in which the respiration, pulse, and temperature were very low. There was no surer sign of immediate death in such cases than an increase in the pulse, respiration, and temperature.

There being no other specimens, the Society went into executive session.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

STATED MEETING, DECEMBER 6, 1869.

DR. GEORGE T. ELLIOT, JR., PRESIDENT, in the Chair.

THE PRESIDENT announced the admission of the following new members: Drs. George G. Wheelock, James Forrester, and James B. Hunter.

The reports of the Committee on Medical Intelligence and the Committee on Diseases were read.

THE PRESIDENT announced the receipt, from the Kings County Medical Society, of a circular letter and petition in favor of naval reform, which were read. The Comitia Minora recommended it for general signature.

He announced, also, that arrangements had been made for regular semi-monthly meetings of the Society throughout the season, and that for nearly all of them papers were already engaged.

HYDRATE OF CHLORAL.

DR. WM. A. HAMMOND read a paper *On the Physiolo-*

gical Effects and Therapeutical Uses of the Hydrate of Chloral.

Assuming that the paper of Dr. Jacobi at the last meeting [see MEDICAL RECORD, December 1st, p. 433], the various articles in the journals, and the growing use of the chlorine hydrate in practice in this city, had familiarized the members with the history of its introduction, the Doctor said that he should confine himself to an account of his investigations upon the special action of the drug on the cerebral circulation, and chiefly through this action and its effect upon certain nervous diseases. He had made careful observations, in numerous experiments, the details of which were given, of the condition of the pupils, of the ophthalmoscopic appearances of the optic discs, of the indications of the cephalo-hæmometer (an instrument devised by Dr. H. for determining intra-cranial pressure, described in the RECORD, June 15, 1868, vol. iii., p. 187), and of the aspect of the pia-mater after removal of a large part of the cranium and dura-mater,—all under the influence of varying doses of the drug. From these observations, as well as from observation of the nervous symptoms, and from their known relation to cerebral congestion or anæmia, the Doctor had convinced himself, and as he thought clearly demonstrated, (1.) that pretty large doses of the chloral hydrate produce at first congestion of the brain, probably from vaso-motor paralysis accompanied by functional exaltation; (2.) that this stage is soon followed by one of cerebral anæmia (perhaps from cardiac and cerebro-spinal paralysis), with the resultant drowsiness deepening into profound sleep; (3) that small doses produce only the congestion and excitement, with no subsequent hypnotic effect. With these views of its action, the Doctor had employed the drug in his practice. He reported a case of acute mania and several of cerebral congestion with persistent insomnia, in which it had produced the happiest effect, a few doses, or even a single one, seeming to break up the habit of wakefulness so that the patient would afterwards sleep regularly and well without further medication. In one case of chorea the remedy had acted satisfactorily, but in another it had produced little improvement. A case of epilepsy, which had resisted the bromide of potassium, yielded to the chloral hydrate, and other cases seemed benefited by it. The Doctor was satisfied, from his limited experience, that it was a remedy of real value in a number of diseases of the nervous system.

DR. S. CARO related a case in which he had employed this agent. A feeble old man, of eighty-six years, with senile paralysis, had suffered from complete oblique inguinal hernia on the right side since the age of twenty-four, and on the left since a few years later, always wearing a truss, except at night. On retiring at 10 P.M., Nov. 1st, the intestine came down and he could not return it; and after six hours Dr. Caro was hurriedly summoned, at 4 A. M., Nov. 2d. The left hernia was found in the inguinal canal, somewhat strangulated, but easily reducible; the right was in the scrotum, strangulated, and obstinately resistant to all efforts at reduction. After a long and unsuccessful trial of taxis, the Doctor a part of the time lifting the body by the legs thrown over his shoulders, strong belladonna fomentations were applied, and frequent doses of castor oil administered. The oil was vomited and the belladonna did no good. At 10 A.M. the patient was chloroformed to anæsthesia, but reduction was still impossible. He was then left for eight hours under the belladonna fomentations, when a tobacco enema was given, with no benefit.

Eight hours after this and twenty-eight from the first discovery of the strangulation—the patient meanwhile growing weaker and more restless, with increasing abdominal pain and anxiety—recourse was had to the hydrate of chloral. The specimen used was prepared by E. Schering, of Berlin. One gramme and a half, equal to twenty-three grains, was dissolved in mucilage and exhibited by the mouth. Almost immediately the patient assumed a cadaveric aspect and appeared to be in articulo mortis. But alarming as were these symptoms, the Doctor at once again resorted to manipulation of the intestine; and, to his surprise, found it was easily returned within the abdomen, twenty-five minutes after the chloral hydrate had been taken. But how to resuscitate the moribund patient was now the Doctor's concern. He himself felt extremely doubtful of the result; and his perturbation was by no means calmed by the family, who stood around charging him with having killed the old man, who was fast losing strength and growing cold. With no electric battery at hand, he was almost in despair; but a Davidson's syringe and a bottle of brandy gave him courage. The brandy, diluted with milk, was freely injected; and in twelve hours the patient had revived.

The dose of the chloral hydrate administered was but three-fifths of that prescribed by Liebreich. Had the full dose been given, what would have been the result? Or was the collapse of the patient due not alone to the chloral, but to the cumulative action of the other medicines? This seemed improbable, as the chloroform had been given twelve hours, and the tobacco eight hours, before. Perhaps the patient's advanced age and weakness rendered him specially susceptible to the prostrating action of the drug. The case at least showed the necessity of using great caution in its administration, until the discovery of some safe and efficient antidote to its excessive action.

THE PRESIDENT referred to a case of puerperal fever lately occurring in Bellevue Hospital, and still under treatment, in which he had been employing the chloral hydrate. A young woman, confined in natural labor on the 24th November, had soon begun to complain of some pain in the stomach and acute pain in left thigh and calf of leg, exciting apprehensions of phlegmasia dolens, which were happily not realized. Lochia scanty; milk not well secreted. By the 29th the patient had developed such febrile symptoms, with abdominal swelling, pain, and tenderness, that it was deemed prudent to isolate her and put her upon morphia, although peritonitis was not frankly declared. December 1st, she looked badly; the belly was quite as large, from tympanitic distension, as it had been at full term; pulse very frequent; temperature high. Looking about for a remedy that would meet the indications of relieving the pain and abating the temperature, the chloral hydrate seemed to promise both, and was exhibited by the mouth, with a commencing dose of ten grains, repeated in two hours. The House Surgeon, Dr. McLean, attended personally to its administration, watching the effect of each dose, and devoting himself day and night to the case. The action of the drug had been as favorable as the speaker had anticipated; the fever had rapidly declined, and the patient was approaching convalescence. The case would be more fully reported when complete.

PREMATURE DELIVERY AS A PROPHYLACTIC.

DR. T. G. THOMAS read a paper on *The Induction of Premature Delivery as a Prophylactic Resource in Midwifery*, of which, as it will appear complete in the *Am. Jour. Med. Sci.*, we give but a brief abstract.

There are certain dangers incident to the parturient condition, which will probably never be fully averted or fully met by the highest science or the greatest skill. But their number is steadily diminishing with our increasing knowledge of pathology, and our consequent

advance in prophylaxis and therapeusis. Although a few of these dangers give no warning of their approach, yet the most of them can be recognized from one to three months before the end of gestation; and, in such cases, the induction of premature labor promises, more than any other means, to diminish the risk both to mother and child. Premature labor, or expulsion of the fœtus after the period of viability, is, in this connection, to be carefully distinguished from abortion—its expulsion before that period.

The chief conditions which call for this procedure, exclusive of those which call for abortion, as also of some rare conditions which need not be considered, are the following: 1, Deformity of pelvis; 2, Placenta prævia; 3, Aggravated uræmia; 4, Excessive vomiting; 5, Placental apnœa; 6, Commencing epithelioma; 7, Death of child, and consequent septicæmia; 8, Threatened death of child; 9, Approaching death of mother; 10, Amniotic dropsy; 11, Previous rupture of uterus, or performance of Cæsarian section; 12, Excessive accidental hæmorrhage; 13, Previous difficulty in deliveries of large children, or of children with ossified sutures; 14, Tumors obstructing the pelvis. In general, any condition which menaces the life of the mother or the viable child, and which would be removed by delivery, as well as any pelvic obstruction which would prevent the passage without mutilation of child at full term, but would not prevent it a month or two earlier, calls for the induction of premature labor. Each of these conditions the Doctor enlarged upon, and fully illustrated by cases from practice. We shall touch upon a few points only.

(1.) It was not strange that pelvic deformity should have furnished by far the greater number of cases of artificial premature delivery, when it was this which had, in the vast majority of instances, compelled recourse to such operations as embryotomy and the Cæsarian section. Still, that it should exceed all other causes combined, in the proportion of more than ten to one, as shown by some statistics of British practice, belonged to the ignorance of its value, and to the imperfect means for its accomplishment, of a past generation, not to the enlightened practice and the perfectly safe appliances of to-day. The Doctor claimed that premature delivery, two or four weeks before close of term, is preferable not only to the graver procedures, but even to delivery by forceps at full term, in those cases where, both by measurements and by previous deliveries, the pelvis is proved to have a degree of deformity rendering natural labor at full term impossible.

(2.) Placenta prævia, fatal to one-third of the mothers and one-half of the children, owes much of its danger to the exhaustion of both mother and child by the repeated hæmorrhages of the last month, and to the profuse flooding at the beginning of labor, when very probably the accoucheur is not at hand. By premature delivery we not only anticipate the exhaustion, but we are able to render as brief as possible the critical first stage of labor, and in great measure to control the hæmorrhage by the very means used to produce the dilatation. (Details of four cases.)

(3.) Puerperal nephritis, with its resulting uræmia, the most prolific parent of pulmonary œdema, puerperal convulsions, and puerperal mania, as well as of grave danger to the child, is apt to be developed, by the pressure of the uterus on the kidneys and their vessels, during the seventh month, but sometimes not till the end of the eighth. Its dangers of course steadily increase with the increasing pressure up to delivery, and may require to be met by effecting this prematurely. This should not be done in the lighter cases, where but moderate albuminuria and comparatively slight anasarca and nervous disturbance exist; for these careful hygiene and proper therapeutic measures will commonly suffice. But where assiduous examinations of the urine show a progressive increase of its albumen till it almost wholly coagulates; where anasarca is excessive, the stomach extremely irritable, and the patient's drowsiness shows the probably near approach of coma and convulsions, there should be no delay in saving both mother and child from the fearful dangers which hang over them. (Reports of three cases.)

(5.) Where a woman has repeatedly expelled a dead fœtus, at about the same period, from placental degeneration, and indications are clear that this is about to occur again, the child may be saved alive and the mother's heart rejoiced by premature delivery

(7.) Septicæmia is rare as the result of fœtal death late in pregnancy, the child being often carried to full term without harm to the mother. The Doctor had, however, met with one severe case which required premature delivery.

(8.) In threatened death of the child, not only from placental disease as mentioned above, but from other causes, such as accidents greatly endangering the fœtus though the mother may run little risk, the procedure in question is sometimes required. In the case reported the child was suffering apparently from uræmic poisoning, and was stillborn, though the mother's symptoms had not been alarming.

(9.) By "approaching death of the mother" the Doctor meant not threatened death, but death inevitable, the mother being in such a condition that her remaining vitality might legitimately be exhausted in an effort to save the child. Such cases occurred in the last stages of phthisis, cancer, Bright's Disease, etc. The case given in illustration was one of cerebral apoplexy, occurring during a uræmic convulsion. The woman, after a few days, was evidently fast succumbing to the cerebral lesion; and as she carried a living child at seven months, it was determined to deliver her. She was moribund at the time of delivery, and died a few hours later. The child was now in a vigorous girlhood.

After a summary of his cases of premature delivery, numbering thirteen, the Doctor spoke of the hygienic management of the infants so delivered. Their chief danger lay in their lack of heat-making power. They could not, like infants at term, supply heat sufficient if its escape were only prevented, but it must be artificially supplied. A premature child should not be washed for a week or more; and during that time it should be kept constantly in a temperature of 90° to 95° F., thus letting it realize its change of climate as little as possible. To maintain this temperature the Doctor was accustomed to use an apparatus which he exhibited—a tin tub with a hot-water jacket everywhere surrounding it, the water being renewed at the top and drawn off at the bottom of the interspace, which was three or four inches wide. A thermometer in the tub served to regulate the heat. Here the child was placed, bedded on and covered by an ample supply of cotton or wool. Such protection was essential even in midsummer with the mercury at 95° or higher. A basket of wool and bottles of hot water might supply the place of the tub. But no matter what your precautions, a seven-months' child stood little chance of living, and one born earlier almost none; while, with proper management, an eight-months' child had about as good a prospect as if carried to full term. The end of the eighth month (the ninth menstrual epoch) was the most favorable time for premature delivery.

THE PRESIDENT had listened to the paper with great interest, having been himself a pioneer in this country in the use of the douche and of Barnes's dilator for

the induction of premature labor. Another appliance, which he exhibited to the Society, the dilator of St. Tarnier, promised to be of the greatest utility. It was simply an elongated sac of very thin rubber, to be introduced, like Barnes's, by the aid of a sound, and connected at one end with a flexible tube for filling it with water from a syringe. Its great merit lay in the thinness of its walls, rendering it easy of introduction where even the smallest of Barnes's dilators would not pass; so that it might at least prepare the way for these, and save waiting for the effect of the douche or other more tedious procedures. Like all rubber instruments, it should be smeared with glycerine and not with oil before insertion. In a large class of cases, where time was not a matter of great moment, the simple introduction of a gum elastic catheter between the membranes, to be left till it should stimulate the uterus to contraction, as employed by Dr. Thomas in one of his cases, would prove all that was necessary. But this would not do in urgent cases. For these the means at our command would insure delivery almost invariably within two hours.

The speaker had, several years ago, in a paper before the Academy of Medicine, ventured to predict that the time might come when improved methods might justify the induction of premature labor even as a matter of professional convenience between the accoucheur and his patient; when a lady, having fixed her time and engaged her physician, perhaps from a distant city, would be ready to meet the engagement at such day and hour as was deemed most feasible. That time was certainly approaching. But powerful for good as were these means in the hands of men of experienced skill, sound judgment, and high principle, they were none the less potent weapons of evil when wielded by the ignorant or the unscrupulous; and there was no doubt that they would often be prostituted to criminal purposes.

It was an important question, how often the physician was to relieve a woman, say at the seventh month, in cases where the child's life was thereby subjected to great hazard, in order to diminish that to the mother. This might be found oftenest a matter of perplexity in the uræmic cases. In the speaker's practice, some years ago, a pregnant woman had shown albuminuria with a diminished excretion of urea, progressive anæmia, and every symptom threatening death from uræmic poisoning. Premature labor was indueed, and the child died. The woman was shortly *enceinte* again; the same symptoms came on, and she applied for the same relief. The operation was delayed some three weeks, till her death seemed imminent, when she was again delivered of a child doomed not to live; yet possibly only again to subject herself to the same conditions. When women, as in this case, develop a reckless indifference to the fate of their offspring, what must be the physician's attitude? Has any woman a right to place herself again and again in a situation which experience has taught her may compel the sacrifice either of her own life or of her child's, or of both?

The speaker referred to Dr. Thomas's eighth division, "threatened death of the fœtus," and urged the greatest caution in interpreting the signs supposed to indicate progressive fœtal weakness—that the frequency and force of the heart-beats, for instance, must be regarded in comparison not with an assumed uniform standard, for there was none, but with a standard determined by careful and prolonged observation of the individual case in health, of course taking due account of the effects of changes of position in utero, etc.

As to pelvic deformities, the obstetrician of the future would doubtless find reason to revise our measurements, and to differ widely from the dogmatic rules of our text-books, assigning the respective domains of the forceps, of version, of craniotomy, etc. The bimastoid diameter of the fœtal head was probably too great as commonly given. The speaker had lately delivered a living child through a pelvis with a true conjugate measurement of two and a quarter inches. The child was delivered by forceps, and was breathless at first, but was revived. On applying the callipers to its head, they showed the grounds of this happy result,—a bimastoid diameter of only two and one-sixteenth inches.

In deciding the question of inducing premature labor, there was one point of which we could never be certain, the length of the child's intra-uterine life. The interval possible between insemination and conception, and again that between conception and the last catamenial flux, had often led us all into error.

The Society adjourned.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

STATED REUNION, DECEMBER 3, 1869.

DR. ISAAC E. TAYLOR, PRESIDENT, in the Chair.

RELAXATION OF PELVIC SYMPHYSES.

DR. F. G. SNELLING read portions of an elaborate paper (to appear in full in *Am. Jour. Obst.*) upon *Relaxation of the Pelvic Symphyses in Pregnancy and Parturition*, illustrating the subject by diagrams and by drawings from the microscope. He referred to the full consideration given to this subject by continental writers, and its comparative neglect by recent English and American authors. He gave the symptoms of abnormal relaxation, chief among which were the extreme difficulty or impossibility of walking or even standing, and the great pain and distress experienced in every attempt to do so. He related a typical case from his own practice, and quoted several others, including a case doubtless of this character, though reported by Hodge as one of uterine misplacement. To determine the ætiology, he had made careful studies of the anatomy of the pelvic articulations. From these, and from comparative physiology, as well as from a comparison of the views of numerous authors, the conclusion was reached that a certain amount of relaxation of the symphyses is normal and benignant, occurring in a very large number of pregnancies, if not in all; and that the pathological conditions above-mentioned were only the result of a physiological process carried to excess. The prognosis in these cases, and their occasional disastrous sequelæ, were touched upon. The best treatment was that by M. Martin's steel girdle, which, by confining the pelvic bones with something like their normal immobility, very greatly conduced to the patient's comfort, and facilitated her recovery.

DR. FORDYCE BARKER.—This is a subject of great importance, although barely alluded to by English writers for the last quarter of a century. By the ancients, and through the middle ages down to the present century, it was believed that this relaxation was a normal element in parturition; and it was this belief which suggested to Sigault the operation, which was the occasion of so much excitement at the time—that of division of the symphysis pubis in cases of difficult labor. Sigault supposed that he was simply carrying out more completely the ordinary physiological process; but that his operation was based upon ignorance and misconception of the true mechanism of labor, is shown by the fact which has been demonstrated, that it would

require a separation of the pubic bones to the extent of at least an inch to gain from two to four lines in the antero-posterior diameter.

The paper of to-night has been very rich in references to the foreign literature of this subject. I would say a word of the writers upon it in our own language, among whom Denman has given a very complete exposition of the affection, with details of some cases of great interest. He relates one where it was eight years before the patient recovered sufficiently firm union of the symphyses to enable her to walk. In the American edition of Denman, edited by Dr. Francis, there is a full note reporting a case in the practice of Dr. Wright Post, of this city, and another from the practice of Dr. Hosack. Next to Denman, Burns gives the best discussion of the subject. Ryan also speaks of it. Miller, Rigby, Ramsbotham, make no mention of the matter; and Tyler Smith, Cazeaux, Churchill, and Bedford give it but a cursory allusion.

It has been my fortune to see quite a number of these cases, some of them involving points which I have not seen mentioned by any writer. The first occurred at the very beginning of my practice. A lady, in the eighth month of her first pregnancy, had for several days great difficulty in walking, with severe pain in the pubic bones, till one day she fell while walking across her drawing-room. She supposed that she had caught her toe in the carpet. From that time up to her confinement she could not walk or stand. After a very careful examination, I was unable to make out the diagnosis; and none of the authorities at my command threw any light on the question. I therefore called in consultation two quite prominent surgeons; and one of them diagnosticated fracture of the neck of the femur; the other, fracture of the ilium or ischium. I watched the case very anxiously, naturally expecting a difficult labor and some untoward result; but to my surprise the labor, though a first one, proved brief and easy, with no abnormal symptoms. The patient passed through the puerperal condition with nothing to excite apprehension; yet, on essaying to rise, she found that she was still wholly unable to bear her weight upon her limbs. Some six weeks after confinement I got her out of bed, and carefully attempted to make her walk. A point which struck me, and which I have never seen mentioned, was that she could stand with comparative ease, resting upon either one leg or the other, but could not balance herself upon both legs at once. This of course convinced me that there was no fracture of the thigh-bone, and the fact that there was no difference in her ability to rest upon the two sides showed that there could be no fracture of the ilium or ischium. Led by this to examine the symphysis pubis, I thought there seemed to be an increase of the space between the pubic bones, and also that the cartilage between them seemed softer than natural. When I left the place, some four years afterwards, this patient was able to walk only with great difficulty, upon crutches. Three or four years later yet, she was much improved, though still compelled to use crutches. I am told that now, after the lapse of some fifteen years from that unfortunate pregnancy, she has entirely recovered, and walks perfectly well.

In hunting up my authorities with reference to this case, happening to turn to the anatomy of the pelvis in the first part of Denman's work, I found the key to the whole mystery. Since that time I have seen the affection well marked in ten other individuals, in one of whom it has occurred, so as to produce decided pain, in her last three pregnancies. As I before remarked, my observations have differed in some repects from those I have found recorded. In none of the cases I have seen has the relaxation of the symphyses been dependent in any degree whatever upon the process of parturition. But in all of them—and this fact may give a clew to the true pathology of the disease—the patients have had pelves very capacious at the superior strait; and where I have seen them before confinement, the fœtal head has lain very low in the pelvic cavity during the last month of gestation. It has seemed to me that the œdema and consequent laxity of the ligamentous tissues may be due to the mechanical obstruction of the venous trunks by the pressure of the fœtal head. Again, in most of the cases, I have noticed, after confinement, pendulous belly, and great difficulty or impossibility of completely evacuating the bladder, doubtless due to overdistension during pregnancy, from the same mechanical cause which produces the œdema of the ligaments and of the lower extremities. The irritability of the bladder, which, according to Churchill as quoted by Dr. Snelling, is frequently attendant on these cases, is explainable by this retention of urine, and the mechanical pressure on the urethra.

To three of my eleven cases I was called in consultation, and always under similar circumstances. Nothing is more apt to damage the reputation of a young physician than that a patient should fail to recover rapidly after child-birth, unless the obstacle to her recovery can be made perfectly clear. How unjustly a young man may often have to suffer from this cause may be seen from one of these three cases, which will serve as a type of all. A lady in her third pregnancy engaged to attend her a young physician in whom the family felt much interest and confidence. Both of her previous confinements had been favorable, under the charge of an old physician who had since died. This third labor proved, to all appearance, perfectly normal, and the woman seemed to be recovering well, until she attempted to get out of bed, when she found that she could not stand. A week, two weeks, passed, and the attempt was again made, with the same result. She not only could not stand, but had severe pains in the pelvic bones. The case went on to, I think, about the eighth week after confinement, the patient with this exception perfectly well, when another gentleman was called in—a man much older and of more prominence in surgery than in obstetrics. He discovered in the pelvis a hard tumor the size of a hen's egg, which he thought scybalous, as it proved to be. It was brought away by large injections, and an early cure was promised. The young man was severely blamed for neglect; but, unfortunately for his elder, the promised recovery did not take place. The surgeon treated the patient for some five weeks, with no perceptible change in her condition, when I was called in. A careful examination satisfied me that the case was one of pretty strongly marked relaxation of the symphysis pubis; but I reserved my opinion until the following day, when I insisted on seeing both of the physicians together. Then, taking with me a dry pelvis, I demonstrated what I believed to be the patient's condition; and called upon the older doctor to exonerate the younger from all blame. On both days I specially noted the patient's incapacity entirely to evacuate the bladder. After what she supposed a successful effort to do so, I drew off on the first occasion about four ounces and a half of urine, and on the second about four ounces. I explained that this condition of the bladder was probably due, like the accumulation of scybala in the rectum, to the same cause which had produced the pubic relaxation. A binder was firmly placed about the patient's hips, and within a few weeks all trouble with the bladder had disap-

peared, but it was a year or so before she could walk with comfort.

Dr. J. C. Peters remarked that he had heard incidentally of Dr. Snelling's case; that at that time he did not believe in the occurrence of such a disease; and thought that the notions were old-fashioned and exploded. Subsequent examination of authorities, and some late French writings, convinced him that he was mistaken. The irrefragable proofs, which Drs. Snelling and Barker had so abundantly produced this evening, were now sufficient to convince every one of the occasional occurrence of the disease, although he had not met with a case in a midwifery practice extended over twenty-five years. He would like to hear the opinion of some experienced and careful physician like Dr. Underhill.

Dr. Underhill had seen a few cases where some difficulty of the kind had occurred, but never to the extent reported to-night. He related a case of suppuration in the symphysis pubis, ending in death on the eighth day. He thought the affection could not be very common; and that pelvic relaxation should always be deemed a pathological rather than a physiological condition.

The President said that, among the cases of this accident related by Meigs, was one in which it occurred in the first three pregnancies, skipped the fourth and fifth, and reappeared in the sixth; also one where it occurred in a young girl who, from some religious notion, had had the pelvis anointed daily during the latter part of gestation. Meigs had found the binder of little use; it did not afford a firm support. If one side were alone affected, the woman might stand well upon the other; if both were affected, she must cross her feet. Cases had been observed where the sacro-iliac articulation had been opened widely enough to admit the finger; and even upward dislocation of the ilium had occurred. The attachments of the recti muscles, each chiefly to the pubic bone of its own side, should be considered in relation to this accident. Where but one side was involved, the corresponding muscle would be softened and weakened, while the opposite one would draw its own side of the pubic arch upwards.

Dr. Stein called attention to the revival of an old operation for phimosis, that of rupturing the mucous membrane; and exhibited an instrument for the purpose, devised by Dr. Hutchison and made by Tiemann & Co.

The Secretary acknowledged the receipt from Prof. Boeck of his illustrated work on skin diseases; and a vote of thanks was tendered.

Correspondence.

THE RECENT DISTURBANCE IN THE CLINICS OF THE PENNSYLVANIA HOSPITAL.

To the Editor of the Medical Record.

Sir—Your readers are aware that a disturbance recently took place at the Pennsylvania Hospital Clinic, in consequence of the appearance there of a number of female students of medicine.

The newspapers of Philadelphia have, without exception, commented, in the most unjust manner, upon the conduct of the male students, vilifying them, and calling them all manner of hard names.

The facts of the case are, that the managers of this hospital saw fit, without consulting their Medical Board, to issue the hospital ticket of the institution to female students of medicine, who made their appearance, to the number of some twenty or thirty, at the clinic of November 6. A great excitement was produced among the male students, evinced ultimately by applause and hissings. Instead of allowing the lecturer to calm the tumult on his entrance, as he might very well have done by a few remarks requesting quiet—for Dr. Da Costa is much beloved by the students, and they would have acceded to any suggestion which he might have offered for their guidance under the embarrassment of the occasion—one of the managers of the institution saw fit to give the students a lecture himself on their conduct, which, as may well be imagined, was not at all well received. This gentleman, keeping his hat on, as is the custom of conforming members of the Society of Friends, became himself the object of uproarious remark on the part of the students, many of whom, unfamiliar with the custom of Quakers, requested him in no polite terms to uncover himself in their presence and the presence of ladies.

The clinics were proceeded with in the usual manner, and on dispersing the men stepped aside while the women proceeded out of the yard. They then followed them in mock procession for a short distance until their respective paths diverged.

A great deal of unseemly criticism was indulged in by the reporters of the newspapers, in consequence of which the students resolved to abstain for the present from attendance on the hospital clinics; and the audience has since consisted of females, male students of irregular colleges, and others attracted by interest or curiosity.

Several newspaper articles have appeared emanating from students, private physicians, the Board of Managers of the Hospital, the Women's Medical College, and the medical representatives of the regular schools and hospitals.

The entire blame of the disturbance rests upon the Board of Managers of the Pennsylvania Hospital, who virtually insulted the Medical Board of the institution, by introducing women among their audience without asking their coöperation or consent. It is said that this was done designedly, in the hope of providing some vacancies in the Board to be filled by the male and female professors of the Women's Medical College; and a paragraph in the circular of the Women's College seems to give color to the report.

It is well known that the profession generally, be they in favor of female physicians or otherwise, have always been strongly averse to having men and women taught medicine together, and on account of the very fact that they are men and women. The impropriety of a course of medical instruction to classes comprising both sexes needs no argumentative comment. That this view has always been taken, can be seen from the discussions on the subject which have at various times been published in your columns.

Now that this view has been publicly promulgated in the printed "remonstrance," the newspapers cry out that the profession offers no solution to the difficulty, and only reiterates the suggestions of the secular press, that men and women should be taught separately.

The best mode for females to obtain clinical instruction is to induce their friends to develop the resources of the Women's Hospital to the utmost. The Women's Hospital of Philadelphia has ample means, and many wealthy friends; and if, as the female professors allege, women prefer being treated by women, all they have to do is to advertise their institution, and bring it prominently before the notice of those who seek the aid afforded in hospitals.

We do not believe that the plan of separate clinics for men and women will work. It will never do to

have a double staff of medical officers to attend to the same patients; and the natural result of such an arrangement will be that the clinics to the male students will be attended to assiduously as heretofore, while the clinics to the small class of female students will not receive equal attention on the part of the lecturer.

We believe that every great medical school should have a hospital under its control; and we would respectfully suggest to the two great schools of Philadelphia that they resent the insult offered their students by uniting in establishing a grand clinical hospital of their own, to be devoted to the mutual benefit of both schools. With Gross and Pancoast from the Jefferson, and Smith and Agnew from the University, they would have a surgical staff far superior to the staff of the Pennsylvania Hospital; and with Stillé and Carson, or F. G. Smith, from the University, and Meigs and Da Costa from the Jefferson, they would have a medical staff which would leave nothing to be desired. Patients will flock to the point at which they can expect the best service, and it would not be long before a college hospital, such as the friends of these two schools could establish, would contain all the clinical material that could be conveniently employed for purposes of practical tuition.

The Pennsylvania Hospital could then have its staff of attendants to suit itself, the same as other hospitals where clinical teaching is not practised, and thus clinical teaching be placed where it belongs, under the guidance and control of the teachers of medicine, who best know the character of instruction that their students require.

The opinion has been expressed, that the Managers of the Pennsylvania Hospital will recede from the position they have taken, and make such arrangements as will enable the students of the two schools to resume their attendance on its clinics.

Meanwhile the attendance, already numerous, will increase at the Philadelphia Hospital (Blockley), one of the largest charities in the world, and under the care of a fully efficient corps of clinical teachers.

In fact, the clinics of the Philadelphia hospitals have, of late years, become much more attractive than those of the Pennsylvania Hospital, on account of the greater amount and variety of material; and were it not that it is located at such a great distance, some two miles and more, from the Colleges, the attendance at the Pennsylvania Hospital, located within a few squares of the medical schools, would have been much less than it has been. The students have little to lose beyond their time in preferring the Philadelphia to the Pennsylvania Hospital.

C. J. S.

Medical Items and News.

County Medical Society.—At the meeting of this Society, held on the 20th ult., Dr. J. C. Peters gave his experience in the use of various arterial sedatives. Having had exceptionally good opportunities of observing the practice of different schools, both here and in France and Germany, he brought to the illustration of his views of the subject many interesting and instructive reminiscences. Drs. Flint, Ramsay, Chadsey, Caro, Nott, Elliot, and others took part in the discussion.

Professor Fordyce Barker begins his clinical lectures on Obstetrics and Diseases of Women and Children, at Bellevue Hospital, on Thursday the 6th inst., at half-past 1 P. M., and they will be continued every Thursday at the same hour.

Dr. Thomas Addis Emmet has been elected a Corresponding Member of the Obstetrical Society at Berlin.

The Oregon Medical and Surgical Reporter is a new monthly journal published by the Medical Faculty of Willamette University. The editor is Professor E. R. Fiske, A.M., M.D. The first number, November, 1869, is sprightly and very readable.

Dr. Emmet's Mode of Securing the Pedicle.—In his last case of ovariotomy, at the Woman's Hospital, Dr. Emmet secured the pedicle by means of a silver wire (No. 25), to each end of which a straight round needle had been soldered. Beginning at one side of the pedicle, a series of stitches were taken by passing both needles, in opposite directions, at the same point, making the "saddler's stitch." By drawing on the ends of the wire the required compression was obtained, and although the arteries were large and numerous they were perfectly controlled, their extremities projecting conspicuously above the cut surface of the pedicle. The ends of the wire were twisted and cut off, and the pedicle dropped into the abdominal cavity. The patient made a rapid and complete recovery.

New York Ophthalmic and Aural Institute.—The Board of Trustees of the New York Ophthalmic and Aural Institute held a meeting last month, at which the by-laws of this institution were framed. The latter is intended to be a permanent hospital and medical school for the treatment and study of eye and ear diseases. It has been in working order since May. Dr. H. Knapp delivered the medical report for the past six months. 616 persons were treated gratuitously as out-door patients, 69 admitted to the house. 97 operations had been performed, among which 17 for cataract. The summer course of lectures was attended by 12 students, the present winter course is attended by 34 students. The Institute is extremely well suited for the purpose, elegantly fitted up, and may be one of the finest of its kind. The surplus income from private patients is employed for the benefit of the poor ones.

Academy of Sciences, St. Petersburgh.—At the last reported meeting, MM. Zabeline and Wassileuski read a joint paper "On the Influence of Chloride of Sodium on the Absorption of Tribasic Phosphate of Lime and Metallic Iron." This was a physiological paper, and the authors conducted their experiments on dogs. The paper is full of interesting details, and its facts seem to justify these two conclusions: 1st. Phosphate of lime, when introduced into the stomach with caseine, is found to be absorbed in greatest quantity when the food contains much chloride of sodium. 2d. Chloride of potassium, while it helps the organism to absorb iron more quickly than chloride of sodium, also assists in removing this metal through the secretions more rapidly than the former.

Properties of Petroleum.—There is one curious fact that has been observed in relation to workmen engaged at the petroleum oil-wells, and that is, that their hair and beard soon become luxuriant, dark-colored, and assume every appearance of vigorous health and growth. There could not be a better dressing for suppurating wounds or sores. It dispels flies, expels vermin, disinfects the sore, and promotes a healthy granulation. It is a superior dressing for burns, and a good remedy in scabies.—*Trans. Penn. Med. Society.*

The Brain of the Late A. D. Richardson.—The brain of the late Albert D. Richardson, the journalist, who was killed by McFarland, weighed 54½ ounces.

Original Communications.

THE MECHANICAL CAUSE OF BRIGHT'S DISEASE.

READ BEFORE THE EAST RIVER MEDICAL ASSOCIATION.

By S. WATERMAN, M.D.,

METROPOLITAN POLICE SURGEON.

In the present paper upon a subject about which so much has been written, it would be impossible to give even a brief resumé of the views of authorities; suffice it to say that the most frequent as well as most effective causes of the disease are:—

1. An altered and impoverished state of the blood, either acquired or inherited.

2. The presence of poisonous substances in the blood introduced from without; often of a zymotic origin, having a direct depressing or vitiating effect upon the kidneys, or upon the great net-work of organic or nutritive nerves of said organ.

3. Lesions of the great cerebral, cerebro-spinal, or sympathetic centres, interfering with the vital processes of selection, attraction, and chemical affinities of the secerning cells in the kidneys as well as in other organs, thereby creating morbid conditions of the elements of tissues, within which the vital chemistry performs its most obscure, yet most important processes of transmutations.

4. Excessive determination of blood to the kidneys, resulting from mechanical causes, either by direct pressure upon this organ or by retarding the blood-current through the capillaries of the same, giving rise to congestive and inflammatory processes. The pressure may also arise from other organic diseases, especially from cardiac disease.

5. The direct depressing effects of cold.

6. Alcohol.

Whilst all these causes are efficient in the working out of final pathological phenomena, it may be well to consider their *modus operandi*.

It will be found that, however different the first of the morbific causes may have been, with but few exceptions, the tendency is to create mechanical disturbances, as manifested by the retardation and stagnation of the blood-current. Congestive or inflammatory processes in the kidneys, with more or less cardiac disease, must of necessity follow.

An impoverished state of the blood may be inherent in individuals, or may be acquired. Insufficient food, vitiated air, loss of blood from traumatic or other causes, and long-continued disease, are frequent and efficient causes. In this state the serum of the blood becomes less and less dense, the blood corpuscles swell, lose their discoid form, burst, and are destroyed. In a word, the formation of new red corpuscles is impaired and finally arrested, whilst the white corpuscles numerically increase. Bearing in mind the importance of these red corpuscles in the nutrition of the economy and the production of the indispensable nervous stimulus, we may readily understand the rationale of this impoverished state of the blood in its action upon the individual organ, as well as upon the fabric at large.

Again: The presence of poison in the blood may act in a two-fold manner upon the kidneys. First, as an irritant to the organic or sensitive nerves, so as to destroy the equilibrium existing between the supply of blood to the organ and its proper transmutation and secretion; second, it may set up a zymotic action, resulting in a permanent dissolution of the vital current. In the blood poisoning of cholera, or in scarlet fever, the paralyzing effect will result in total or partial suppression of the secreting power, *e.g.*, the suppression of urine; here the cell life is suspended and may be destroyed altogether. It may expend its paralyzing power upon the contractile power of the capillaries, and cause stagnation of the circulation within this organ. Where it acts as an irritant, it may unduly excite the activity of the secerning cells, and thereby induce an increased current of blood to the organ, mechanically distending the capillaries, causing congestion, stasis, etc. This may give rise to inflammatory action affecting every part of the complicated renal structure, manifesting itself in exudation of lymph and fibrin within the urinary tubules; degeneration and destruction of the secernating epithelial cells of these tubulæ; obliteration of these tubules and wasting of the entire organ, or terminating in a species of saponification or fatty degeneration.

It will be seen how lesions of the nervous centres, or nerves supervising the healthy performance of renal functions, affect this organ. Fear, anger, grief, or any other depressing cause, have a direct effect upon the secretions, especially those of the kidneys. Hence, too, a blow upon the head, spine, or stomach, will often result in altered secretion, or its complete suspension.

Excessive determination of blood to the kidneys, induced by any of the preceding causes, will at first manifest itself by a mechanical distension of the capillaries and pressure upon their dilated walls. Where the heart itself is the seat of the disease, or the disease of the kidneys results from any of the enumerated causes, the heart will sooner or later be drawn into energetic sympathy. Meeting with resistance in the engorged kidneys, it will apply increased and more powerful contractions as a remedy. The capillaries yield sooner or later to this increased cardiac pressure; their walls become over-distended, attenuated; their contractile power is suspended or destroyed; and, as this process goes on, the serum of the stagnated blood begins to exude through the distended coats of the capillary vessels, constituting the first stage of albuminuria.

These mechanical causes must also have a direct destructive influence upon the vital processes of oxidation and oxygenation, which are carried on in the capillary system; for it is there that the material is attracted by the secerning cells, in conformity to the laws of affinity; that it undergoes its processes of transformation through the influence of the oxygen of the blood, which it abstracts from said fluid in exchange for carbonic acid. There can be no doubt the morbid processes just described do interfere with the performance of this vital function. This mechanical theory will meet resistance on the part of those fully committed to the doctrines of cellular pathology, who deny that any morbid process can go on in the economy so long as the cell life is intact.

It is contended that, in cases where there exists undoubted stagnation in other organs, and where the disturbed and interrupted reflux of blood to the heart must necessarily induce also engorgement or accumulation of blood in the kidneys, no such extravasation will take place so long as the secerning cells remain in a condition to attract through the capillary walls the material from the blood suitable to their specific affinities. But, in our view, it would be folly to deny that pressure upon these cells must interfere with their integrity, and that mechanical causes may produce Bright's Disease. We see this in the pregnant woman, where the pressure of the fœtus, by causing disturbance in the renal circulation, produces albuminous urine. This may, it is true, cease with the pregnant condition; yet we often

meet unmistakable signs of uræmic toxication, convulsions, coma, and death, during, before, and after parturition. So, too, cases are by no means rare where Bright's Disease has been engendered by tight lacing, by the wearing of trusses and bandages.

The direct depressing effects of cold are undoubtedly first exerted upon the nervous system, especially upon the extensive net-work and radicals of the skin. Long-continued application of cold, we know, will gradually paralyze their sensitive and motor power. In health, where an active oxidizing process is going on, resulting in the generation of caloric, the system is enabled to withstand the influence of cold; but in individuals of reduced vitality, comparatively moderate changes of temperature are capable of producing these paralyzing effects upon the nerves, as well as upon the capillary circulation of the part affected. We know that a large quantity of effete material is eliminated by the skin; this process is interrupted under the effects of cold; the kidneys may for a time perform this eliminating process for the skin; but this increased duty is apt to cause undue influx of blood to the organ, producing, finally, stagnation and its dangerous consequence, albuminuria.

Although we consider albuminuria a pathological condition, yet it is necessary to remember that by it the engorged organ is greatly relieved, and an opportunity thus given it to recover its lost integrity, provided always the congestion itself can be removed. When this happens, perfect recovery may take place, as may be witnessed in albuminuria, which is the result of desquamative nephritis after scarlatina.

Where the engorgement of the kidneys is not, or cannot be removed—where, on the contrary, it increases—the capillary walls, already distended to their fullest capacity, may burst and hemorrhage ensue.

A glance at the anatomical structure of the kidneys will point out the most vulnerable point, where hemorrhage most frequently ensues. It is in the peculiar convolutions of the Malphigian bodies where it takes place most frequently, and where, fortunately, the extravasated blood finds a ready and nearly direct outlet through urinary tubules.

The ensuing hemorrhage often has a salutary effect by promptly relieving the engorgement and removing pressure from the radicals of the organic nerves, as well as from the secerning or epithelial cells, enabling the former to control again the vital chemistry of the parts, and enabling the latter to diminish still further the engorgement by absorbing and attracting from the blood such elements as their affinities demand. In this way the organ may return to its integrity. Not only may an affection of the kidney be thus permanently relieved, depending upon mechanical pressure, but there can be no reason why the affection called tubal nephritis by Dickinson and desquamative nephritis by Johnson, may not at times be relieved, as this affection is simply an inflammation of the convoluted uriniferous tubes, where all the conditions of local engorgement may obtain. It is probable that in cases of renal hemorrhage a portion of the extravasated blood may be absorbed, and with it the ruptured capillary vessel or Malpighian gland. The kidney may, of course, to some extent, suffer; yet, admitting that enough of the organ has escaped these processes, why may not recovery take place? But where the hemorrhage involves the larger part of the Malpighian bodies and the capillary vessels, it may constitute true *apoplexia renalis*, and thus destroy life by the hemorrhage as well as by the want of the entire secerning apparatus.

Nor is hemorrhage confined to the convolutions of the Malpighian bodies, to the exclusion of larger vesse or the capillary net-work surrounding the uriniferous tubes. Either of these last being the seat of the lesion, the extravasated blood, deprived of a ready outlet, must exert undue pressure upon the tubuli and their epithelial cells. Gradual absorption of tissue, suspension of function, and entire suppression of urine necessarily follow.

The subjoined cases will illustrate the foregoing propositions:

Case I.—Goldina Strauss, of this city, nine years of age, had an attack of scarlatina; the symptoms generally were mild until the fourteenth day, when the child became feverish, complained of pain in the right lumbar region, with suppression of urine. She had a constant desire to micturate; from two to four ounces, and once even eight ounces, of blood were passed. Countenance anæmic in the highest degree; skin moist and rather cool; irritative fever; pulse frequent and feeble. The free exhibition of gallic acid and the external application of cold across the regions of the kidneys arrested the hemorrhage after it had lasted eight days. Quinine and diluted muriatic acid were afterwards administered. As the hemorrhage grew less, urine made its appearance, at first highly charged with albumen and blood-corpuscles, which gradually disappeared, leaving the urine normal. The recovery was perfect.

Case II.—Mr. Latz, a German, aged eighty years, after exposure to a severe north-west wind for several hours, came home to suffer from stoppage of urine. The catheter relieved him of about one quart of urine, highly charged with blood. For three successive weeks this condition of things continued, when he improved under the influence of gallic acid. He had a similar attack, one year after, of which he also recovered; to which, if report be true, may be also added a third invasion, the particulars of which we cannot report. At all events, the patient still enjoys his age, which is now about eighty-five.

When the relief by hemorrhage, and by the exudation of serum proves inadequate, a change must, sooner or later, ensue in the condition of the blood itself; beginning in gradual impoverishment, and tending to a fatal issue by manifold complications.

The continued exudation of serum (furnishing, as it does, the very materials from which the blood corpuscles are formed, viz., *hæmocrystallin and hæmaglobin*) is the first step in this impoverishment. It leaves the blood in a concentrated, thickened condition, unfit for proper circulation. A demand for water is set up, and this fluid is abstracted from all the tissues of the body and is applied to replace the albumen lost. Thirst and dry skin mark this stage. The blood then becomes watery, and so constitutes the second step in the degenerative process.

As soon as this stage is reached, endosmotic and exosmotic laws begin to exert their inevitable influences; as water is less dense than serum it penetrates the cell wall of the blood-corpuscles, changing their characteristic conformation, inflating them until they burst and pour out their coloring matter into the blood-serum. Dr. Goodfellow describes this process in his work on disease of the kidneys (p. 88) as follows:

"There is no doubt whatever that if water be added to serum so as to considerably reduce its density, an osmotic current will more or less rapidly be set up towards the interior of the globules; they will lose their flattened discoid form, become globular, and, if they remain in this medium for any length of time, according to the reduction of density, they will burst and be destroyed. In this process of destruction the hæmocrystallin or hæmaglobin is liberated and becomes mixed

with the serum; it exudes through the capillary walls, as we have described above, and appears in the urine."

Whatever is the primitive cause of the destruction of the cell-membrane, be it simple engorgement, inflammation, or that peculiar septic state of the blood produced by malarious or zymotic agencies, or by a disorganization and exhaustion of the nervous power, the result is always free and disintegrated cell-membranes suspended mechanically in the current of the blood.

One of the most fruitful causes of Bright's Disease is the excessive use of alcohol. Physiologists are divided upon the manner in which alcohol affects the economy; whilst some think that it is changed in the capillaries under the action of oxygen into aldehide, acetic acid, carbonic acid, and water, others contend that it goes unchanged into the blood and is excreted as alcohol; that whilst it is in connection with the blood current it dissolves fatty elements and manifests a very strong affinity for water, which it abstracts from the tissues as well as from blood; that it has been proved to be present in greater proportion in the nervous tissue than elsewhere; that it disturbs its functions; that it perverts and ultimately destroys nervous power; that it tends to harden the brain substance, and to produce atrophy of many of the structures; that by its paralyzing influence upon the nervous system it causes delay in the circulation, stagnation and capillary exudation; that the fatty material dissolved by the alcohol is deposited in various organs, leading to fatty degeneration; none of the least is the conversion of the epithelial cells into adipose tissue. It is more than probable that its presence interferes with the process of decarbonization of the blood, and delays the combination of oxygen with the hæmocrystallin of the blood.

The question may now be asked, what becomes of these cell-membranes? It is generally believed that their lacerated remnants are dissolved, that they undergo a retrogressive metamorphosis, and that they are discharged as effete materials.

This view, in our judgment, is erroneous; in order to understand the subject better let us here state what is known of the entire blood-corpuscle. It consists of three different materials: first, of the cell-membrane; second, of globulin; third, of hæmatocrystallin, the coloring pigment of the blood. The cell-membranes consist, according to Muller, of binoxide of protein; they are highly elastic, and possess a great deal of resisting power. Dr. Day states that they do not dissolve in nitre water, even after prolonged digestion at 100° Fahrenheit, nor do they dissolve in acetic acid, or even in nitric acid.

The cell-membrane secretes a small quantity of a viscid fluid, which under certain conditions makes the globules adhere to each other like rolls of coin. Dr. Robin describes the blood-corpuscles as solid bodies, highly elastic and resisting when properly acted upon by oxygen, but less so where the decarbonization of the blood is imperfect. We see no reason to adopt the view of Dr. Robin, and although as a general rule the cell-membranes cannot be demonstrated in all cases, either in the blood or in the urine, yet we occasionally meet cell-membranes which were formerly held to be organic globules of doubtful origin.

It is well known that the blood-corpuscles undergo a retrogressive metamorphosis, and that a certain number of them are regularly used up and their elements undergo such changes as are necessary to fit them for elimination, and that these corpuscles are constantly renewed from the protein elements of the economy; but the destruction of a pathological quantity of these corpuscles, neither in the normal manner aforesaid, nor in conformity with the vital chemistry, but in consequence of a morbid or impoverished state of the blood itself, must produce effects quite different upon the economy.

It is probable that in this condition the cell-membranes undergo a decomposing process, freeing nitrogen and carbon, which in their turn will act as a ferment upon the blood-mass, converting the urea contained therein into carbonate of ammonia.

The presence of this salt in the blood is held by nearly all authorities to be instrumental in producing the poisonous effects which we describe under the name of uræmia or uræmic toxication.

That the simple presence or retention of urea in the blood, even in considerable quantities, does not alone produce these effects, may be learned from a great many cases where an entire suppression of urine takes place for days without uræmic poisoning.

We know that urea is a normal constituent of the blood and that its quantity fluctuates, while it is influenced by conditions not as yet perfectly understood. It has been held that so long as the blood-current is otherwise in a normal condition, the presence of a larger amount of urea will not exert a deleterious influence; but in the advanced stage of Bright's Disease the blood is devitalized, and uræmic intoxication supervenes more readily.

We are inclined to think that to produce these specific effects it needs a ferment to decompose the urea collected in the blood, and that the decomposing cell-membranes furnish this ferment in abundance. An analogous process takes place in the bladder, where the alkalinity of the urine irritates the walls of this viscus, and causes an excessive secretion of mucus; mucus, when decomposed, acting as a ferment on the urea contained in the urine, converts it into carbonate of ammonia.

Of globulin little need be said here; it differs from albumen in requiring a temperature of 199° or 204° F. for its point of coagulation, whilst albumen coagulates at 54° lower. It fills the cell-membrane, and is so intimately mixed with the red coloring matter proper (the hæmatocrystallin or cruorine) that it includes in its coagula the entire amount of this substance.

Hæmatocrystallin, the true coloring material of the blood, is crystallizable; research has proved it to be the agent that binds the oxygen to the blood and easily parts with it in the capillaries of the system, where it absorbs carbonic acid; it also readily parts with carbonic acid to reabsorb oxygen. The spectroscope has demonstrated that hæmatocrystallin combined with oxygen presents a different spectrum than when combined with carbonic acid. This substance contains carbon, hydrogen, nitrogen, oxygen, sulphur, and iron. All the iron in the blood is contained in the hæmatocrystallin. This element can now be procured by the ounces and pounds. Hæmatine, so far from being the coloring matter of the blood, as formerly supposed, is merely the result of decomposition of hæmatocrystallin (hæmaglobin or cruorine).

It will be easily understood that the capacity for oxygenation and oxidation, as well as the development of caloric, must vary with the sum-total of corpuscles in the blood containing hæmocrystallin, and that in the morbid state in which the red corpuscles are destroyed in pathological quantities, the capacity for absorbing oxygen must be diminished in equal proportions. The result justifies the opinion that oxidation, decrease in temperature, and inability to carry on the processes of transformation upon which the vitality of the organism depends, tend to the accumulation of carbonic acid, which favors the decomposition of urea and leads to a fatal issue with symptoms of uræmic intoxication.

The disorder having reached the point where the fer-

ment begins to decompose the accumulated urea in the blood, this fluid, thus impoverished and chemically altered, is no longer fit to serve as a stimulus for the nerves, and vital energy is hopelessly prostrated at the very moment when from its integrity alone salvation could be expected. It is thus explained how cases of Bright's Disease may go on for a long time with a seeming mild group of symptoms, until the condition above described suddenly develops itself.

It is in the advanced stages of Bright's Disease that the appearance of hæmatin in the urine is a diagnostic sign of great importance, because it marks the last stage of the disease, and it demonstrates that the mischief done is irreparable. It is generally accompanied by albuminuria, yet albumen may not be present at all. We have seen several cases in which towards the close of the malady albumen was entirely absent and oxalic acid appeared in excess. Another case we have recently seen where the urine assumed the character and appearance of chylous urine, showing very large quantities of finely divided fat globules soluble in ether, forming a fine precipitate with chloroform and a fine microscopic object. There was scarcely a trace of albumen, and yet the man died within a few days after these tests.

Dropsical effusions are apt to take place in the various cavities of the body, facilitated no doubt by the watery state of the blood; hand in hand with this disposition goes the peculiar characteristic waxy pallor, the dry skin, the excessive thirst, the low temperature, and the difficult respiration. The microscope now shows destruction and obliteration of Malpighian bodies, with fibrous exudations within the remaining tubes, as manifested by the presence of fibrous and waxy coats.

Changes in the form and size of the organ will take place; sometimes it will be found to be contracted, puckered, small, and at others it will be found to be considerably enlarged. There are other pathological changes, such as fatty degeneration of the epithelial cells and of the uriniferous tubes. The urinary secretion will be very much diminished or altogether suppressed. The urea is sparingly secreted or wanting altogether in the urine, and may be found accumulating in the blood, where, as we have shown, it meets a proper ferment in the decaying debris of blood-cells, and undergoes its last and destructive metamorphosis.

CASES ILLUSTRATING THE ADVANTAGE OF THE COMBINATION OF THE SULPHATE OF QUININE AND PEPSINE.

By DRS. SASS & LINCOLN,

NEW YORK.

The combination of quinine and pepsine seems to be particularly useful in those cases where there is general debility of the stomach and impairment of all its functions, either primarily or secondarily; but also in our hands, its advantage over either alone is proved in cases where there was inability to digest albuminous food.

Case I.—Mr. P., an apothecary, aged 30, applied for treatment February, 1869. He was of delicate constitution, nervous temperament, temperate in habits, took but little out-of-door exercise, and weighed 127 pounds. For three or four years he had been troubled with dyspepsia, and during the past year had almost constant pain in the epigastric region, sometimes relieved for a short time, but usually aggravated by food. After nearly every meal he suffered from flatulence, the eructations being sometimes acid, at others "putrid." Bowels constipated for a few days, which condition was succeeded by looseness. Appetite capricious—a craving for food would disappear when it was presented; at other times, the very idea of food was loathsome, tongue covered with a white fur, pulse quick, much swimming in head, sleep unrefreshing, no tenderness in epigastrium; had had bronchorrhœa with bad cough for several years, which induced him to consult us. Had tried every kind of medicine without benefit.

Directions were given for his diet, and exercise, and a cough mixture, and daily inhalations of chloride of zinc and codeia prescribed. He was also ordered bicarbonate of soda for the acidity which then prevailed, and a tonic composed of pyrophosphate of iron and iodide of potassium, and at night to take a pill containing one grain of aloes and two grains of extract of lettuce.

March 15. Cough well; has already omitted mixture; inhalation to be omitted; regularity of bowels established, but other symptoms about the same. To take two grain dragees of sulphate of quinine before meals, and the soda p. r. n.

25th. Appetite a little improved, otherwise no noticeable change. Has never taken an emetic; one ordered, and to omit all medicine but quinine.

April 10. For a few days after the emetic, was much better—food digested better, and had less distress; emetic repeated a second time, but the improvement which followed was not permanent.

May 1. Condition not satisfactory. A tablespoonful of the following, which has often proved serviceable, especially if there was any hepatic complication, was ordered:—℞. Ammonii bromidi, ʒ ij.; syrupi simplicis, aquæ, aa., ℥ iij. M.

May 8. Patient remained the same, but thought there was a little tenderness in the pit of the stomach. Counter-irritation was made by acu-puncture needles moistened with formic acid.

May 20. Less pain than for months; but it was not entirely relieved. The flatulence, &c., remain about the same. Has taken pepsine without benefit, but two of the following pills were directed to be taken before meals. ℞. Sulphate quinine, gr. xxx.; pepsine (American) ʒ ij.; extr. absinthii q.s. Ft. pil. No. 40.

June. Felt perfectly well; was relieved at once by the pills, and every bad symptom has disappeared. Has omitted all other medicine.

August 1. Patient remained well; had taken no pill for a week.

Case II.—Was called, July 20, to see Mr. W., suffering from phthisis pulmonalis in its third stage, and who has had severe attack of hæmoptisis on each of the last seven days. He was under the charge of an homœopathic practitioner, who, becoming alarmed, said nothing more could be done for him. His disease dated back two years, and during the past year he had suffered much from his stomach—flatulence, pyrosis, and pain after eating. This difficulty had steadily increased and caused him much anxiety, for his cough seemed to him to be excited by it. In spite of all, his bowels moved regularly; pulse 130; tongue coated, dry in middle, and red on edges; appetite poor; perspiration at night profuse; expectoration heavy and mixed with blood; could speak only in a whisper; greatly emaciated.

He was ordered a cough mixture, tincture of the chloride of iron and sulphuric acid for medicines, and for nourishment milk and lime-water and Liebig's extract of beef in small doses, and often repeated.

July 25. A slight hemorrhage occurred the day

after treatment commenced, but none since. Has almost constant distress in stomach when any food is present. Yesterday, acupuncture was resorted to as in the preceding case, with benefit. To take sulphuric acid only at night.

August 1. Cough much better and feels stronger; slight improvement in stomach symptoms. Perspiration having stopped, acid was omitted, and ordered one grain of quinine four times a day before food.

August 6. Appetite better, but can't indulge it on account of the distress which is excited by food; was given a little more license in eating and a small quantity of egg-nog.

August 15. Three days ago, patient being no better, five grains of pepsine were added to the quinine, and in consequence the stomach symptoms were better than for months.

September 1. Patient had been in the country for a week; could take a hearty meal without discomfort; said he felt better than for a year, and thought he should again be well of his whole trouble. Fowler's solution was ordered.

Case III.—Miss C., a seamstress, commenced treatment August 20. She suffered from a heavy pain at the pit of the stomach, always aggravated by taking food, till she dreaded to eat anything; never vomited; pulse small and quick; tongue large, pale, clean, and tremulous; bowels constipated; has frequent headache and palpitation. She was ordered citrate of iron and quinine with tincture of columbo before meals, and at night four grains of aloes and myrrh pill.

September 4. Her better health gave her better spirits. Bowels acted well, but still some pain after eating; yet there is much improvement. Did not dare satisfy her appetite. The pills of quinine and pepsine, as in the first case, were substituted for the quinine, iron, and columbo, and the night pills reduced.

September 11. A steady improvement noticed through the week till all pain had disappeared. Night pills omitted, and ten minims of the tincture of the chloride of iron ordered after meals.

October 1. Well. Has gained eight pounds in weight since improvement began.

Case IV.—Mrs. C., aged 55, nervous temperament, and feeble, had been troubled with indigestion for eight or ten years, suffering most of the time from gastralgia, flatulence, nausea, and at times vomiting. This condition was always worse when she ate meat, till she was obliged to omit it altogether. She could not remember when she had been free from a sense of burning in her throat or stomach. Bowels were irregular; often resorts to enemas. Was also suffering from chronic metritis. Had been treated by many physicians; but never received any permanent relief from her dyspepsia. She was ordered to take most of her food in a liquid form, and chiefly composed of meat-broth, milk, and stale bread. Five grains of pepsine and one grain of sulphate of quinine were prescribed in powder, to be taken three times a day before meals, and treatment of the uterine difficulty at once begun.

Relief of the stomach symptoms was almost immediate, and in the period of three weeks she had gained seven pounds in weight.

If it be suggested that the deranged state of the stomach was dependent upon the uterine disease, it will be a sufficient answer, that the effect of the treatment upon the metritis was hardly perceptible when the stomach was relieved.

Scarlet Fever in England.—In England the mortality from scarlet fever exceeds twenty thousand annually.

FRACTURE OF BASE OF SKULL—RECOVERY.

By THEO. F. WOLFE, M.D.,

of Jersey City, N. J.

Alice G., æt. 7, native of Jersey City, of healthy parentage and herself of previous robust health, fell headlong from the third story down upon a plank flooring, the weight of the body being received upon the vertex. This occurred at 2 o'clock P. M., Sept. 8th, 1869. I saw her twenty minutes subsequent to the accident. Loss of consciousness was complete; cutaneous surface was cold and clammy; respiration was labored and stertorous; pulse 130, feeble and very irregular; pupils were both contracted—the left one markedly, the right one not so much; there was a profuse flow of venous blood from the right ear, welling up from the cavity of the tympanum as fast as it could be removed by sponges; considerable hemorrhage from anterior and posterior nares; no paralysis; contents of stomach had been expelled previous to my arrival; the soft parts of the vertex were much contused and ecchymosed. Had the body wrapped warmly in blankets, between which were placed bottles of hot water; applied sinapisms to abdomen and extremities; ordered a stimulating enema and small quantities of Spts. Vin. Gal. to be repeated at short intervals. 5 P. M. Reaction comes on slowly; there is partial return of consciousness; surface warm; respiration easier and more regular; pulse 126, soft; right pupil normal, left moderately dilated, responds feebly to light; some vomiting; instead of hemorrhage from right ear there is now a free discharge of a limpid watery substance, which the tests prove to be cephalo-spinal liquid.

Diagnosis.—Fracture of base of skull, with compression of brain from extravasated blood. *Prognosis:* grave. Ordered *cool* (not cold) applications to the head, a cathartic dose of Hg. Chlor. Mit. Cream tartar water to be used as a drink.

9 P. M. Dr. Theo. R. Varick, of this city, saw the case with me, and confirmed the diagnosis. Consciousness has returned in a considerable degree; surface is not unduly hot; pulse 120, soft, but more regular; left pupil is widely dilated; discharge from ear persists; still vomits occasionally; patient is restless and complaining. No medicine to be given during the night, body to be kept warm and head elevated and cool.

Sept. 9th. Consciousness almost perfect, asks for drink, and recognizes the mother; surface hot; pulse 124; left pupil still dilated, but much less than before; some photophobia, but no intolerance of sounds; no abnormal heat of head; pillow and child's linen soiled with the discharge from the ear, which is very profuse; vomiting has ceased; not so restless as last night. Applications to head discontinued; prescribed Potass. Iodidi gr. ij. every two hours, diet of oatmeal gruel and arrowroot.

Sept. 10th. Slept well during the night, and is quite rational when awake; surface normal; pulse 140, feeble; pupil still a little dilated; ℥ iv. of the cephalo-spinal liquid discharged since last visit; no other head symptoms. Ordered saline cathartic. Iodide to be continued. A more nutritious diet.

Sept. 11th. Consciousness perfect; sleeps well; pulse 110 and regular; pupils normal; discharge from ear much diminished; bowels and kidneys acting well. Ordered diet of beef essence, animal broths, etc., the iodide and cream of tartar to be continued.

Under this treatment, with due attention to the excretions, convalescence was steady and unremitting.

At the end of two weeks the case was discharged; and, a week later, I saw the girl playing in one of the parks apparently as well in *every particular*, except some impairment of the hearing of right ear, as before the injury.

The diagnosis in this case was founded mainly upon the discharge from the ear. The venous hemorrhage was too profuse to depend upon a rupture of the membrana tympani or of the mucous membrane of those parts, and affords a strong presumption that the petrous portion of the temporal bone was fractured, and probably one of the venous sinuses lacerated.

The flow of watery fluid from the ear was too considerable (℥ iv. in twelve hours) to be serum from extravasated blood alone; besides its non-coagulability by heat and nitric acid, and the presence of a large amount of chlorides, prove that it was not serum, but identical in character with the cephalo-spinal liquid. This, of course, cannot escape without fracture of the bony structures and laceration of the membranes of the brain.

On this point I quote from Miller (*Practice of Surgery*, p. 66), "When 'welling of the ear' appears, we may safely conclude that fracture of the base has occurred."

Druit (*Modern Surgery*, p. 319), "A copious discharge of thin watery fluid from the ear is an indication of imminent peril. It evidently filters through a crack in the petrous portion," etc.

Gross (*System of Surgery*, II., 142), "A flow of serosity is a most valuable occurrence, as it always affords indubitable evidence of the lesion in question" (*i.e.*, fracture of the base).

Erichsen. (*Science and Art of Surgery*, p. 264), "The discharge of a thin watery fluid from the interior of the cranium may be considered as pathognomonic of fracture of the base of the skull."

A CASE OF SUB-PERIOSTEAL RESECTION OF THE CLAVICLE.

By THEODORE R. VARICK, M.D.,

SURGEON TO THE JERSEY CITY CHARITY HOSPITAL, JERSEY CITY, N. J.

The patient is 32 years of age. I was consulted in the latter part of April, 1869, by him on account of, as he supposed, a rheumatic affection of the clavicle and shoulder-joint. The trouble commenced about four years previously, with severe aching pains along the clavicle, but more especially near its centre, which were aggravated at night. Accompanying these symptoms was a diffuse swelling about the size of a white bean, which was tender on pressure, and evidently due to periostitis. During the month of February last, an abscess formed, which was opened by a physician, giving vent to ill-conditioned pus. The relief following the operation was slight.

His condition at the time of his application to me was as follows: a sinus opening about two inches below the clavicle, and some two and a half inches to the right of the sternum. The passage of a probe demonstrated the presence of dead and detached bone.

The clavicle at this point presented an enlargement the size of a hen's egg, and on account of pressure produced severe neuralgic pains in the shoulder and arm extending to the fingers. There was also tenderness on pressure extending nearly the whole course of the bone.

The constitutional symptoms were severe, viz.: profuse night-sweats, occasional slight rigors followed by fever; loss of appetite, and emaciation. Quinine and iron, with generous diet, were prescribed, with the effect of not only arresting the hectic condition, but also of producing considerable improvement in his general symptoms.

An operation for the removal of the diseased mass being imperative, I commenced by dilating the sinus with carbolized sponge-tents, and succeeded after a time in removing several pieces of dead bone through the opening.

It having become apparent that further operative procedure would be necessary, I determined to resect the bone without delay. With the assistance of Drs. Watson, Reeve, and Miller, and Mr. Kirkpatrick, I proceeded as follows: The patient having been brought fully under the influence of ether, I made an incision, commencing over the manubrium, and carried it outward along the anterior surface of the bone to the point of insertion of the anterior fibres of the trapezius. This incision was carried down to the bone dividing the periosteum. I then peeled off the periosteum near the centre of the bone, and passed between it and the periosteum a curved spatula in order to protect the subclavian vessels.

The next step was a division of the bone at this point with Hay's saw and the bone-forceps.

The proximal end of the acromial portion was then raised from its bed, and the periosteum, which was scarcely adherent, was separated by means of my finger-nail and the handle of a scalpel until it was found firmly adherent to the bone, which was at a point as near as may be to the anterior insertion of the trapezius. At this place I divided the bone with a chain saw, from behind forward. The sternal portion was easily removed with the forceps, as all attachments to the soft parts were destroyed.

The entire periosteum was preserved, presenting the appearance of a gutter lying at the bottom of the wound. The portion of bone removed measured four and a half inches.

The wound healed rapidly, and at the expiration of six weeks, at which time the patient left for the country, there was evidence of firm cartilaginous formation.

After an absence of two months he returned to the city in robust health. The process of regeneration of bone has gone on uninterruptedly to the complete renewal and ossification of the part removed, which is perfectly normal in form, except a somewhat flattened appearance on its anterior aspect.

Very Disinterested Benevolence.—The following is an advertisement of a quack dentist in the Western States: "Dr. P——, dentist, having once more opened an office in B——, will perform all operations on the teeth at greatly reduced prices. A beautiful silver cup will be presented to the person having the greatest number of teeth extracted, and a splendid gold watch and charms to the one having the first set of artificial teeth inserted. Teeth extracted for a dollar a dozen." —*Canada Journal of Dental Science.*

Longevity of Miners.—Dr. John T. Carpenter, of Pottsville, Penn., states that his experience for fifteen years as to the *longevity of miners* is unfavorable. It is an ordinary observation to make in a mining village of the great disproportion of young to old men, also of old women over old men. Few men are found exceeding fifty-five years of age. He does not advise any life insurance company to do business among miners, except on short periods of risk, and at large increase of percentage.

Original Lectures.

LECTURES ON THE GALVANIC CURRENT IN ITS RELATION TO PHYSIOLOGY, MEDICINE, AND SURGERY,

BEING AN INTRODUCTION TO SCIENTIFIC ELECTRO-THERAPEUTICS.

By WILLIAM B. NEFTEL, M.D.,
NEW YORK.

LECTURE III.

THE INFLUENCE OF THE GALVANIC CURRENT ON THE TISSUES.

Having considered the electromotor properties of the muscular and nervous systems, and their changes under the influence of the galvanic current, we have now to examine the effect of the latter on the tissues generally. But in order to arrive at more positive results here, as in every other branch of natural science, we have to proceed from the simplest to the more complicated; and we shall therefore begin to study the action of the electric current on the cells, on the protoplasma. I omit speaking about the action of the current on the different organs, because this subject is treated in every text-book on electro-therapeutics, and especially because the results of these investigations are entirely unsatisfactory.

The action of the current on the tissues is as yet very little known to the profession at large, though it deserves a more careful attention, being not only of pure scientific interest, but also of great practical importance, as will be seen hereafter. The electrolytic treatment, for instance, can be traced to the action of the electric current on the protoplasma, and I have based on the same principle the successful treatment of hitherto incurable malignant tumors; the electrolysis, therefore, is a most powerful local and constitutional therapeutic agent.

With regard to the protoplasma, the modern investigations have elucidated the following facts: We know, through the researches of Kühne, Max Schultze, and others, that the contractile substance, or protoplasma (a name which has been introduced by Remak to designate the animal cell-contents), is homogeneous, structureless, and consists mostly of myosine. * It contains, almost always imbedded in it, small bodies, granules, which either have penetrated from without, or are produced within by chemical processes. According to Kühne, the protoplasma contains a great deal of myosine, as it gives exactly the same reactions with water, diluted acids, solutions of salts, and also coagulates at a low temperature. The white blood-corpuscles and pus-corpuscles contain also protagon, according to Hoppe and Fischer; and Kühne found, in the protoplasma of the Myxomycetes, glycogene quite identical with that of the liver and embryonic muscles. Haeckel has shown how easily some insoluble particles of coloring matter penetrate into the protoplasma, a property which has been so successfully used, in their excellent researches, by Recklinghausen, Max Schultze, and Cohnheim. The protoplasma is considered as a living substance, because it exhibits vital manifestations—spontaneous motions, nutrition, growth, and production of similar substance. These vital phenomena can be observed under the microscope, if special arrangements are employed, as described by Stricker. * By the same means we are enabled to study the changes they undergo under the influence of different agents, variations of temperature, chemical and electrical irritations. The motions of protoplasmatic bodies are ascertained either from the changes of their external appearance or from the movements of the granules contained in them. Either the granules move onward uniformly, as described by Max Schultze, or their movement is vibratory, as described by Brücke, in the salivary corpuscles, in the colorless blood-corpuscles, lymph-corpuscles, pus-corpuscles.

Kühne has shown that the best objects for the study of the protoplasma are the simplest creatures, amœbæ, consisting only of a single lump of protoplasma. M. Schultze thus describes their motions with reference to nutrition: When an amœba reaches another organism whose movements are not rapid enough to avoid its grasp, the amœba puts forth processes which embrace the foreign body and keep it entangled until all that was soluble is abstracted from it, and absorbed by the animal substance.

Spontaneous movements in cells of higher animals, being analogous to crawling motions of the amœbæ, are called amœboid movements. Such a cell changes its external shape by sending out processes to which the bulk of the cell is approached, and thus produces locomotion. Recklinghausen † has shown, by means of injected coloring matter readily absorbed by the protoplasma, that such wandering cells can traverse even dead tissues. Sclarewski ‡ has observed the passage of the white corpuscles, by their active amœboid motions, from the interior of a coagulum to the surface; and Cohnheim § has demonstrated that the colorless blood-corpuscles can emigrate from the blood-vessels, through their intact walls, and pass to different and distant regions of the system, where they appear as pus-corpuscles, endowed with the same amœboid movements.

The contractility of the protoplasma is of high importance to the entire system. It is the cause of the ciliary movement, of the movement of the spermatozoa, of the division of the cells and their migration.

The vital properties of the protoplasma are affected by different influences. Already E. H. Weber has observed that a certain degree of heat favors the motion of the cilia (which are protoplasma), and Kühne has shown that the motions of amœbæ cease in ice-water. The vital movements of the amœboid cells of higher animals continue outside the system; for instance, under the microscope, if the temperature is kept, by a special arrangement, equal to that of their respective warm-blooded animals. An increase of a few degrees will augment these motions, a slight diminution will retard them, and a temperature surpassing certain limits is incompatible with the life of the cells. Max Schultze has shown that at a temperature of 38–40°C. the human colorless blood-corpuscles make considerable locomotion on the heated objective; and the influence which a certain temperature exercises upon the development of embryos and upon pathological processes is well known. The influence of chemical agents on protoplasmatic structures is very important. Kühne ‖ has shown the influence of gases on the protoplasma. Weak alkaline solutions are favorable to the protoplasmatic motion; acids retard it, and in hydrogen and car-

* Kuhne: *Lehrbuch der phys. Chemie*, p. 338.—*Untersuchungen über das Protoplasma und die Contractilität.* Leipzig, 1864.
M. Schultze: *Protoplasma der Rhizopoden.* Leipzig, 1863.

* Stricker: *Handbuch der Lehre von den Geweben.* Leipzig, 1868. 1 Lief., p. 10.
† Virchow's Archiv, Bd. xxviii., p. 157.
‡ Pflüger's Archiv, 1868, p. 660.
§ Virchow's Archiv, Bd. xl., pp. 1–79.
‖ M. Schultze's Archiv, Bd. ii.

bonic acid it entirely ceases. Water transforms the amœboid cells into globular bodies, the greater part of which burst after a while. The few retaining their globular shape soon recommence their amœboid movements, especially if a half per cent. solution of common salt is added to the water. But a more concentrated solution makes the cell shrink. Concentrated acids and alkalies destroy the vital properties of the protoplasma, the former by coagulating, the latter by dissolving it.

We now arrive at our principal object—the influence of electric currents upon the protoplasma, which has been studied especially by Kühne, Rollet, Stricker, Golubew. Stricker,* in passing a continuous current under the covering-glass of the microscope, increased the temperature by 5° C. with one Daniell's element, and with six elements by more than 30° C. The electric current is therefore accompanied, in the first place, by all the phenomena which are produced by the different degrees of temperature. It is necessary to observe under the microscope, and distinguish the effects of the continuous current on animal tissues near the electrodes and at a distance from them. In the immediate vicinity of the electrodes the electrolytic effect of the current prevails, and the changes of the tissues are those produced by the action of acids at the positive electrode, and of alkalies at the negative. These changes extend farther from the electrodes only after a considerable duration and intensity of the current. The principal effects of the galvanic current must be observed in the middle between the electrodes. The Leyden jar is much to be recommended in these observations, as it excludes the electrolytic effects.

Kühne has shown that feeble induced currents act favorably on the amœboid movements of the amœbæ, and Golubew finds the same in the colorless blood-corpuscles of the frog. According to Kühne, the stellate corneal corpuscles become spindle-shaped by the shocks of an induced current, and the protoplasmatic structures, irritated with strong induced currents, invariably become perfectly globular—as for instance the amœbæ, the human colorless blood-corpuscles, lymph-corpuscles, pus-corpuscles, etc. From this Kühne infers that the globular shape corresponds to the tetanus of cells. Continuing to increase the irritation, we see the globular cells exhibit the so-called molecular motion of their granules, then burst and void their granules, as has been observed by Brücke in the salivary corpuscles and in amœbæ.

With regard to the action of the galvanic current on the protoplasma of Actinophrys Eychhornii, Kühne gives the following law of contraction:

	At the positive electrode.	*At the negative electrode.*
Closing of the current	Contraction	—
Duration "	Tetanus	—
Opening "	—	Contraction.

Kistiakowsky has noticed the acceleration of ciliary motion produced by the galvanic current. Engelmann† gives the following result of his experiments. Every rapid fluctuation of the current density excites the ciliary motion. During excitation three stages can be distinguished:—the stage of latent excitation, of increased, and of diminished energy. The closing of the constant current is a greater stimulus than the opening. Tetanization lasting a considerable time, produced by a strong induced current, diminishes the motion, which finally ceases altogether with the destruction of the cells. Very interesting are the changes of the red blood-corpuscles, which, as described by Rollet,* they undergo under the discharges from a Leyden-jar. They first become mulberry-shaped, then quite globular and colorless, and in those of the amphibia the nucleus gets driven out. The constant current changes the blood-corpuscles near the electrodes by electrolysis, near the negative pole by the free alkali, which dissolves them, and at the positive pole by the acid, which makes them shrivel.

From the foregoing it must be evident that the electric current, besides its influence on the nerves and muscles, exercises a most powerful action on the animal tissues generally. Favorably as it may be made to act, it is able, on the other hand, completely to destroy all the vital manifestations of the protoplasmatic structures. This latter property makes the electric current a most heroic constitutional agent, as the electrolytic treatment will show.

THE ELECTRICAL CURRENTS IN THE LIVING UNINJURED ANIMAL AND MAN.

The laws of Electro-physiology having been derived from animal parts, which, although in full possession of their vital reactivity, are separated from the whole, the question arises whether the same laws exist in the uninjured living body as well.

The experiments of Du Bois-Reymond† have demonstrated with undoubted certainty that the electromotor properties of the living uninjured frog obey precisely the same laws which have been elucidated with regard to the animal parts separated from the organism. Furthermore, as the laws of the muscular and nerve currents in other animals and man are identical with those in the frog, the whole question is already settled *à priori*.

Nevertheless, as matter of curiosity, more than of scientific requirement, Du Bois-Reymond has instituted numerous experiments on the living human being which have corroborated his supposition. The principal obstacle to the demonstration of the muscular and nerve currents are the cutaneous currents. Already the frog-current, which, as we know, is a general muscular current, when examined through the skin is a great deal feebler; because the currents of the skin, and a certain degree of parelectronomy always existing in the natural condition, are abolished by the removal of the skin and the destruction of the parelectronomic layer by the corroding action of the conducting fluid. According to Du Bois-Reymond, the electromotor properties of the skin in the living man undergo changes from various influences. By deriving a cutaneous current from two different parts, we find that the one which is warmer or colder becomes positive towards the other part, which has a normal temperature. The first immersed portion of the skin is positive to the last immersed. The stretched skin is positive in regard to the not stretched, and finally the injured or sweating skin is positive to the uninjured, not sweating.

When experimenting in the human subject, we must bear in mind the enormous resistance offered by the epidermis to the passage of the electric current. This was perfectly well known to Volta and Humboldt; and Ritter considers the dry epidermis almost a perfect non-conductor. E. Weber, as well as Lenz and Ptshelnikoff, have confirmed this by exact investigations. The thinner the epidermis, the less is its resistance; the thicker and drier it is, the greater is its resistance to the passage of the current. It diminishes

* Op. cit., p. xii.
† *Centralbl. für die Med. Wiss.*, 1868, *No.* 23.

* Stricker's *Handbuch der Lehre von den Geweben.* Leipzig, 1869. Lief. II., p. 282.
† Du Bois-Reymond: *Untersuchungen über thierische Elektricität*, Bd. II., Abt. p. 178, et seq.

with the degree of moisture absorbed by the epidermis and the conductibility of the fluid. The resistance of the human body greatly diminishes by the removal of the epidermis, or by applying the copper electrodes in a warm condition.

It is also possible to demonstrate in the living uninjured man the existence of the negative variation of the muscular current during contraction. With regard to this, I will give here only one of the numerous modifications of Du Bois-Reymond's experiments.* The two ends of the galvanometer are connected with two vessels, each containing the conducting fluid and the immersed fingers of one hand. As soon as a strong and prolonged contraction of the muscles of one arm is produced by the will (voluntary tetanus), the galvanometer-needle will show a deflection indicating the negative fluctuation of the muscular current in the contracted arm.

Erb,† in Heidelberg, instituted most beautiful researches on the living man, with a view of laying down a more firm basis for the rational application of the constant current to the treatment of diseases. By his numerous experiments on different motor-nerves of the living subject, he has conclusively shown that the contraction-law in the living human body is quite in accordance with the physiological facts discovered by Pflüger and Bezold. It is especially instructive to study the differences of the ascending and descending currents with regard to the contraction-law, by applying each electrode to two corresponding (homonymous) motor-nerves. We then observe the closing contraction at the cathode and the opening reaction at the anode.

Again, Erb has demonstrated in the living man the presence of the electrotonic condition of the nerves produced by a constant current. The same has been proved almost simultaneously by the researches of Eulenburg. ‡

They experimented with the accessory nerve, the N. medianus, ulnaris, radialis, peroneus, and were able to demonstrate that the irritability of the nerves is diminished in the anelectrotonic region and increased in the catelectrotonic, in accordance with the laws discovered by Pflüger in the frog-preparation. The excitation was produced by the induced current of the secondary spiral of the magnet-electromotor of Du Bois-Reymond, and the increase or diminution of the irritability was judged from the greater or smaller distance between the spirals, which was necessary to call forth a minimum of contraction. By alternately closing and opening the induced current and shifting the secondary spiral, the minimum of contraction was determined for the polarized and unpolarized nerve. Thus by sending through the accessory nerve an ascending or descending galvanic current, a condition of anelectrotonus or catelectrotonus was called forth. When the nerve-piece below the polarizing current was irritated, the trapezius muscle contracted at a longer or shorter distance between the spirals, thus indicating an increased or diminished irritability, according as the excitation took place in the catelectrotonic or anelectrotonic region. It was further shown that both catelectrotonus and anelectrotonus were in direct relation to the intensity and duration of the polarizing current.

We have yet a question to answer before leaving the physiological part of our subject. Is it possible, on applying the electrodes to the skin, to send a galvanic current into the deeply-seated substance of the nervous centres, wrapped as they are by the bony and other coverings? Even Du Bois-Reymond, when speaking of Nobili's recommendation to use the galvanic current for arresting tetanus, expressed doubts as to the possibility of the galvanic current's penetrating the spinal cord in the living uninjured man, unless it were of such an intensity as would be dangerous for life.* But since then we have learned, from the effects produced by the galvanic current in the living man, that it can penetrate into the nervous centres, even when used of very small intensity. Erb has given the positive experimental proof of this. He removed a (2½ inch) piece of the skull of a dead body, and made a small groove in the corresponding part of the brain, which he brought in connection with the nerve of the well-isolated galvanoscopic frog. When he now applied the electrodes of a weak battery (10 elements) to the moistened skin above the ears, the galvanoscopic leg exhibited lively contractions at every closing, opening, or reversing of the current. These experiments proved that on applying a comparatively weak current to the skull of a dead body, current-loops of such intensity penetrate the brain, that even a fraction affecting the frog's nerve is sufficient to excite it. Erb found the same with the spinal cord.

How very much more favorable are the conditions in the living subject for the penetration of the current. The living tissues, and especially the nerves, according to Benedict,† conduct the electric current a great deal better than can be expected from purely physical deductions. The animal fluids are still better conductors than the tissues, and as they are present in every tissue, even in the bones, of the living subject, the electric current is readily conveyed to the deepest parts through the different tissues.

INDICATIONS FOR THE USE OF THE GALVANIC CURRENT IN THE TREATMENT OF DISEASES.

The whole physiological part of our subject has brought us to the following conclusion. All the electromotor phenomena of the organism, especially of the muscles and nerves, are of two different kinds. Those of one class are due to the inherent action of the tissues, and manifest themselves independently of any external influences. These electro-motor properties are modified or abolished only with the altered condition or destruction of the tissues. The electro-motor phenomena of the other class constitute the so-called electrotonic condition, which is produced by the influence of a galvanic current on the inherent nerve-current. "The foreign galvanic current," says Du Bois-Reymond, "is the immediate cause of the electric process in the nerve, and cannot be substituted by any other agent." ‡

From these general propositions we can deduce the following indications with regard to the use of the faradaic and the galvanic currents.

The faradaic current is used whenever the nerves or muscles are to be excited locally. It is an excellent irritant and derivative.

But when a change in the innermost molecular arrangement of the nerves and nervous centres is desired, or when their inherent electrical currents have to be modified so as to diminish their irritability in hyperæsthesia and convulsions, or increase it in anæsthesia and paralysis—in a word, whenever we intend to pro-

* Du Bois-Reymond: Op. cit., Bd. ii., Abt. ii., p. 287.
† W. Erb: *Galvanotherapeut. Mittheilungen.* Archiv f. Klin. Med., iii., p. 288. *Ueber electrotonische Erscheinungen am lebenden Menschen.* Ibid., iii., p. 513.
‡ A. Eulenburg: *Ueber electrotonisirende Wirkungen bei percutaner Anwendung des Constanten Stromes auf Nerven und Muskeln.* Archiv f. Klin. Med., iii., p. 116.

* Du Bois-Reymond: Op. cit., Bd. i., p. 384.
† M. Benedict: *Electrotherapie*, 1868. 1 Abt., p. 46.
‡ Du Bois-Reymond: Op. cit., Bd. ii., Abt. ii., p 877.

duce the different phases and modifications of the electrotonic state, we must have recourse to the galvanic current, "which cannot be substituted by any other agent"—an assumption now fully confirmed by our present experience.

The faradaic current is of the highest importance to call forth, for instance, the respiratory movements in asphyxia, by exciting the phrenic nerves. It is an admirable means for irritating the skin to call forth reflex movements; for instance, to avoid paralysis of the heart. It is of excellent service to exercise the muscles and peripheral nerves, and prevent their atrophy and degeneration in a variety of diseases. It is also valuable for the examination of the electro-muscular contractility, and for demonstrating the function of the single muscles.

The galvanic current, on the other hand, is alone indicated in all diseases of the nervous centres—in the affections of the brain, spinal cord, and sympathetic.* It is alone able to call forth the reaction of the nerves of the higher senses, and hence is the only one to be used for the diagnosis and treatment of their affections, which will be fully corroborated in the pathological part. As no other current but the galvanic can bring the nerves and the nervous centres into the electrotonic state, we have to make use of it in all diseases of the nerves and their centres, where a modification of their irritability is required. Lastly, the galvanic current is indicated where an electrolytic effect has to be produced, as in the treatment of tumors, or a thermal effect, as in galvano-caustic operations. In some paralytic conditions, where the electro-muscular contractility is lost for the faradaic current, the galvanic current will yet call forth contractions, in which cases it is valuable as a diagnostic and therapeutic means.

In using the galvanic current for the treatment of diseases, we must always bear in mind the capital law of Ohm, which dominates the whole theory of galvanism, and must be taken into consideration in all its practical applications. Its formula is

$$I=\frac{E}{R}$$

and means that the intensity of the current (I) is directly proportional to the electro-motor power of a battery (E), and inversely proportional to the resistance of the circuit (R). From this formula all the special applications can be derived, whether with regard to the construction of apparatus for certain purposes, or to the use of the constant current in electro-therapeutics.

The exposition of Ohm's law can be found in the text-books of physics and electro-therapeutics. Here it may only be mentioned, that in accordance with this law we must use a considerable number of elements, arranged in battery order, whenever it is necessary to send a current through a conductor of great resistance; like the human body, for instance. The same is the case where an electrolytic effect has to be produced. Where, on the contrary, the resistance is small, we must use few elements, but of a very large surface, as, for instance, for galvano-caustic purposes.

Again, the greater resistance a body offers to the passage of the electric current, the less electricity will flow through it in a certain time. This is the reason why, in electro-therapeutics, we must use comparatively strong currents, the human body offering an enormous resistance.

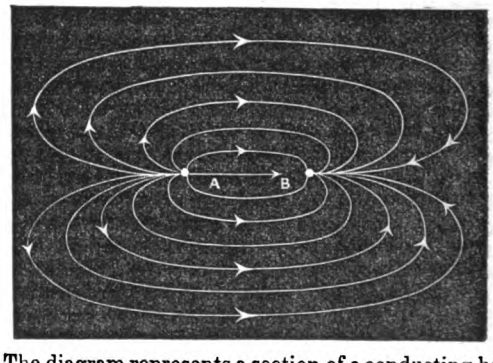
The resistance of a body depends on its form (shape) and substance. With regard to the first, the resistance is in direct ratio to the length of the conducting body, and in inverse ratio to its thickness. The same current will act more powerfully the smaller the thickness of the traversed conductor,—or, as we say, the current-density is in inverse ratio to the transverse section of the conductor. The influence of the current-density is of high importance in the physiological effects of a current, because the effect is quite different when a given quantity of electricity is distributed over a large section or is concentrated on a small one.

The resistance of moist conductors diminishes greatly with the increase of their temperature. We therefore take advantage of this property in electro-therapeutics, by moistening the epidermis with a warm saline solution.

Finally, the resistance of animal tissues diminishes after a galvanic current has traversed them, especially in an opposite direction.

The law of Ohm considers principally the current traversing conductors of prismatic or cylindrical shape, where the current-density is uniformly distributed at every transverse section of the conductor. In electro-therapeutics, however, we have to deal with nonprismatic, irregular conductors. The laws which control the distribution of the current in such irregular conductors have been studied by Du Bois-Reymond,* Kirchhoff,† Helmholtz,‡ and may be expressed generally in the following way: "An electric current in a system of branched conductors distributes itself in such a way that the current-strength in the single branches is in inverse ratio to their resistances."

On applying, for instance, the electrodes of a current to any two points of the human body, the current will propagate itself from these two points through the whole body in innumerable current-loops, all returning to the points of application. According to the laws of distribution of the current in non-prismatic conductors, the effect of these currents will be most powerful at the points of application of the poles, next at the straight line between them, and it will rapidly decrease with the distance from these points. In this way the current may produce a strong effect near the point of application of the electrode, yet be without any effect at some distance.



The diagram represents a section of a conducting body traversed by a current. At the poles A (+) and B (−), and in the direction of the straight line AB, prevails the greatest current-density, which decreases rapidly with the distance from the points of entrance and exit of the current.

However, structures possessing great sensitiveness for the electric current will be easier excited, though at

* It is therefore unphysiological to treat, for instance, the progressive locomotor ataxy, which is a disease of a nervous centre, with the faradaic current.

* Op. cit., Bd. i., p. 561.
† Poggend. Annal., Bd. 64.
‡ Poggend. Annal., Bd. 89.

a greater distance from the electrodes, by a small current-density, than others nearer to the electrodes.

Duchenne has rendered a great service to scientific electro-therapeutics, by making a practical application of the law of distribution of the current in the body, and taught how to localize the action of the current, and excite single muscles and nerves.

Progress of Medical Science.

On Lead-Poisoning.—Dr. Edward Hitzig of Berlin (*The Quart. Jour. of Psychological Medicine*), after a comprehensive survey of lead-poisoning, lays down the subjoined conclusions:

1. Lead, after its absorption into the circulation, may remain in the organization for a long time without exhibiting its characteristic symptoms of poisoning.

2. When these symptoms appear, they are to be regarded as a result of an expurgation of the lead from the circulation into the organs; and indeed those symptoms are (excepting the encephalic) made manifest mostly in the muscles, through direct lesion of the capillary system.

3. A fixed lead concentration in the blood is not the only necessary precursor of symptoms of lead-poisoning, but rather indicates certain affections of the coats of blood-vessels, which interfere materially with the normal process of exudation.

4. The afore-mentioned affection of the blood-vessels exists, during a first stage, in more powerful contraction of the muscles and a reduction of their calibre; consequently, the intravascular pressure, and with it the transudation, is increased, so that a reduction in the volume of blood ensues through a loss of a portion of its watery substance. The opposition noticed in the circulation from the same cause may be the preparatory symptom of local-organ poisoning.

5. During a second stage we noticed relaxation, and a varicose degeneration of the venous coats, rendering the valve insufficient. Even these changes assist through the possibility of the lead compounds passing into organs.

6. The peculiar predisposition of certain muscles to lead paralysis manifests itself through the various conditions of the veins of those muscles.

7. The manufacture of curled hair, and undoubtedly also the use of poor materials, predispose to lead-poisoning.

8. Mobility in cases of lead-poisoning, is lost before the electric contractility.

Permanganate on Potash in Ozæna.—Three cases of ozæna, treated successfully by irrigations of permanganate of potash, are reported in the *Medical Press and Circular*; the proportion of the remedy being 5 parts to 100 of water, applied by an irrigating apparatus, furnished with a flexible tube, the head of the patient being held forward, and a copious washing of the fluid used over the mucous surfaces. The disgusting odor disappeared after a few days of this treatment, and a cure followed.

Extractum Ergotæ.—Langebeck (*Med. News and Library*) makes this preparation for subcutaneous injections as follows: Extr. ergotæ, 2.5 p.; alcohol, 90 sp. gr., glycerine, of each 7.5 p.

Treatment of Chronic Tuberculosis.—Dr. Smith (*The Med. News and Library*), in his lectures on "Wasting Diseases of Children," states that three things are indispensable in the treatment of *chronic tuberculosis*. A free supply of fresh air, avoiding chills; a moderate amount of exercise, avoiding over-fatigue; and plenty of nourishing food, avoiding repletion and indigestion. It may be laid down as a rule that the best climate for a patient is one where the temperature is as low as can be borne. A hot, moist climate is only of value in cases where there is excessive irritability of the bronchial mucous membrane, a condition which would be increased by warm, dry air. The object of a change of residence in this disease is to obtain a climate where the patient can pass his time out of doors, without incurring the risk of catarrh; and where, at the same time, the quality of the air is sufficiently invigorating. Moderate exercise while out of doors should always be enjoined, due regard being had to the degree of vigor of the patient. In-doors, free ventilation must be sustained, while every care is taken to avoid draughts.

The action of the skin must be promoted by warm clothing, and by daily sponging with tepid water. In the early stages of the disease the cold bath, at a temperature of 60° Fahr., may be employed if its use is found to be followed by a proper reaction; if not, and the child remain languid and chilly, the temperature of the water must be raised. Tuberculous children should always wear a shirt and drawers of flannel next to the skin. In regard to the diet, four small meals are preferable to three larger ones in the day. Plenty of new milk is essential, and should always be given undiluted if it can be borne. Acidity of the stomach is to be corrected by the addition of lime-water to the milk. The simplest articles of food are the best, as plain roast beef or mutton, mealy potatoes well mashed, milk, and strong beef or mutton tea, free from grease. Clear turtle soup is exceedingly digestible and nutritious. Violent purgatives should be avoided; if there is constipation, an occasional dose of castor oil, or of decoction of aloes, will be sufficient to produce an evacuation. The most common condition is one in which the bowels are relaxed, three or four light-colored, offensive motions being passed in the course of the day. In these cases opium is a most valuable medicine, and should be given with dilute sulphuric acid, if the tongue is clear, as in the following mixtures:—

℞. Tinct. opii M. xxiv.;
Acidi sulphurici aromat. ʒj;
Tinct. myrrhæ, ℥iss;
Syrupi aurantii, ℥j;
Infusi aurantii ad ℥vj.

M. ℥ss ter die; or if there is much straining, with mucus in the stools, and a furred tongue, it can be given with castor oil:—℞. Tinct. opii, ℥xxiv; olei ricini, ʒiij; Syrupi Mucilaginis Acaciæ, āā, ℥j; Aq. menth. pip. ad ℥vj. M. ℥ss ter die.

The flannel bandage should always be worn round the belly in these cases.

Addison's Disease.—Dr. H. H. Clark, Albion, Ill. (*Cin. Lancet and Observer*), while extracting a superior canine tooth from a married lady, noticed a peculiar brownish mottled color of the right side of the neck and face. He was induced by curiosity and for information to ask its cause, when she gave the following history: At nine years of age she suffered from malignant scarlatina, followed by some kidney trouble, accompanied by dropsical effusion, from which she was nearly two years in recovering. At fourteen she menstruated, and not long after noticed a bronze-colored spot just beneath the right breast. These kept making their appearance, till the right shoulder, breast, and neck were more or less spotted, some quite dark-colored, others a deep yellowish stain. At twenty-three she married, three months subsequently becoming pregnant. During the whole term had trouble with the

kidneys, and the bronze spots became much darker. After delivery she regained her ordinary health. Two years after her first child was born, she became pregnant, and applied for relief from pain in the breast and stomach. At the eighth month she was so prostrated as to faint on assuming the sitting posture, and premature labor was advised. While making arrangements she had a slight convulsive attack, confined to the right side of the body. Twenty-four grains of bromide of potassium were given every twenty-four hours. After the fourth dose she became quiet, and passed a pint and six ounces of urine. The vomiting ceased, and she went on to full term of gestation. The bromide was given, 10 grs. night and morning, till after delivery, at which time the kidneys were acting freely and the bronzing of the skin was very much lighter in color. He is satisfied that the amendment was due to the bromide. First, the vomiting ceased; then quietness came with quiet sleep, a free flow of urine, and lastly, return of appetite, power and ability to retain food. How it acted, is the question: Was it an alterative and diuretic? or as an anti-emetic and nervous sedative, obtaining the retention of food by its direct action on the nerves of the stomach, and sleep by its general action? He believes it to be the latter, as the action was too rapid for its alterative powers. Another question is, What has scarlatina to do with developing this disease, if any? If it did not cause it, may it not have left the kidneys in a condition favorable to its development, when from other causes the organs should be overworked or unduly excited, which being followed by a local debility runs into the form of Bright's disease,—*i. e.*, supra-renal melasma?

Nitrate of Silver in Rheumatic Paraplegia.—Dr. Caradec, of Brest, reports a case occurring in a humpbacked person, but caused by living in a damp dwelling. There were pains in the back, arms, loins, and legs; intense hyperæsthesia of the skin of the legs, and twitchings of the muscles, followed by paralysis of the limbs and sphincters. The nutrition and temperature remained normal. The pains were followed by total anæsthesia as far as the upper fourth of the thigh, and the paralysis became complete. After this state had lasted a year, he was put under the use of nitrate of silver, from one to eight centigrammes per day. An evident gain in sensation and motion was noted in three weeks, and an almost perfect recovery in three months. The patient remained well for five years. The good effects of the nitrate of silver are regarded as undoubted, and the remedy is confidently recommended for similar cases.—*Gazette Hebdom.*

Calabar Bean in Trismus Neonatorum.—Dr. Alois Monti of the Dr. Ann's Child's Hospital, reports three cases out of five cured by this remedy. He prefers subcutaneous injection, as he thinks the internal use uncertain. He repeats these injections every ten or fifteen minutes until the spasms cease; then intermits them even for several hours until the cramps return again. For new-born children he uses one-tenth grain of the extract per dose, and goes up to one-third, one-half, or a whole grain a day. Older children can commence with one-third grain per dose. For internal use from one to four grains a day may be given.—*Jarhb. für Kinderheilk.*

Glycerine of Tannin.—Mr. J. D. Hill, Surgeon of the Royal Free Hospital, London (*London Lancet*), has furnished the notes of six obstinate cases of acute and chronic gonorrhœa, in which the glycerine of tannin would appear to have been of great service. In several, injections of zinc, lead and alum, had been employed without much benefit. The formula employed was the following: Glycerine of tannin, 3 ounces; olive oil and mucilage, of each one ounce.

Sclerotitis Relieved by Extracting a Carious Tooth.—C. E. Wright, M.D., Indianapolis, Ind. (*Western Journ. Medicine*), was applied to by a young woman, æt. 25, with circumscribed sclerotitis about the insertion of the external rectus muscle of the right eye. Patient was experiencing no other difficulty save a severe aching of the second molar tooth on the same side. Treatment produced no perceptible good until the carious tooth was extracted, when the inflammation subsided as if by magic.

Formula for Giving Quinia.—A correspondent of the *Medical and Surgical Reporter* furnishes the following formula to cover the taste of quinia:

℞ Quiniæ sulphatis, gr. xxiv., Syrup sarsap. comp. f℥ iij., Acidi tannici, gr. iij., Ol. Menthæ Piperitæ gtt. v. M.

To Detect Ergot in Rye-Flour.—We have a ready test for the presence of ergot, not merely in the microscopic appearances of the flour, but in the circumstance that, as it is the lightest of all the constituents of flour, it will float upon a mixture of one part of chloroform and six of alcohol, and will appear as a scum of dark-brown particles.

A Remedy in Hemicrania.—Dr. A. H. Smith, Philadelphia (*Am. Jour. of Obstetrics*), speaks very highly in favor of ammon. muriat. in 15 grain doses, repeated every two hours, in hemicrania.

Poisoning by Coralline.—M. Tardieu (Paris letter to the *Richmond and Somerville Medical Journal*) has made a report of researches on this poison. One of the cases presented was that of a young man who presented the following symptoms: an eruption on his feet resembling eczema, accompanied by an inflamed state of the skin, general uneasiness, fever, headache and nausea. Repose and emollient lotions were prescribed, but the eruption was only cured at the end of three weeks. Believing that the eruption might be caused by his having worn red silk stockings a chemical examination was at last instituted, and it was discovered that the poisoning was due to coralline. Several other cases of poisoning from the same cause also came under the notice of M. Tardieu. He experimented with this substance upon animals by injecting it under the skin. A frog died at the end of four hours; a dog after thirty-six hours, and a rabbit on the third day. The pathological appearances were interesting. The place of the injection became violently inflamed, with formation of pus; the mucous membrane of the intestines was inflamed, the liver fatty, and the lungs were dyed a beautiful scarlet color. With some of the coloring water from the lungs, M. Tardieu dyed in red some skeins of silk.

Subcutaneous Medication for Syphilis.—Dr. Max Van-Monshos reported in the Brussels Academy five cases of secondary syphilis, with indurated chancres, treated by subcutaneous injection of calomel. Three of the cases received two or three injections each (quantity not stated) at intervals of about twelve days. These were nearly or quite cured after the lapse of thirty-seven, twenty, nineteen days respectively; and the two remaining cases, and which had each received one injection only eight days previously, were notably improved. If this discovery is verified, it will prove one of the most important ever made in regard to the treatment of syphilis.—*Medical and Surgical Journal.*

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INTEMPERANCE AND OPIUM-EATING.

EVERY article of the materia medica that is worth anything as a medicine, has its good as well as evil effects, according as it is used with care and discrimination or not. This is pre-eminently the case with the two remedies so long fashionable with us—whiskey and opium. Both are conceded to have great power when properly employed, and both to be attended with bad results when not used with judgment and skill. Whiskey is the greatest favorite of the two, and the one which, from the manner in which we use it in our prescriptions, attended with the greatest ultimate harm. There can be no question in the mind of any candid observer, that we are in the habit of using whiskey too largely and too thoughtlessly; and in view of this fact, it becomes us more to inquire into its evil than its good results upon the morals and health of the community. We are unwittingly educating the people into the belief that whiskey is nothing short of a panacea for almost every disease, and that the oftener they take the remedy the better off will they be. No matter what else we may give the patient, he is pretty sure to be told that he must not neglect to take his whiskey—a piece of advice which is not often unheeded. Very seldom if ever is any particular quantity named, and the patient does not, in consequence, regard it strictly in the light of a medicine, but more as an article of diet, which can be used more or less largely, according to his own discretion. The physician who is accustomed to give his patients a loose line in this particular should not, nay, must not, lose sight of the grave responsibility which he takes. His eyes should be open to the melancholy truth that he is sanctioning, nay, actually encouraging, ultimate intemperance. There are no means of ascertaining how many confirmed drunkards are annually given to the community as the direct and immediate result of physicians' prescriptions, but the conclusion is unavoidable that the number is very great. How can it be otherwise? A person with any appetite whatever for spirituous liquors, requires no better encouragement to indulge his propensities than that it benefits his health by so doing; while one without any appetite in the beginning, is pretty sure to find one before he is called upon to stop his tonic. In either case, the habit of tippling is too apt to be kept up long after the physician has any call for his advice. No one pretends to say that the majority even of such cases terminate in being notorious drunkards, and in the end dying from absolute inebriety. On the contrary, with the upper classes, this is the exception; but what is almost as bad, the habit of tippling is engendered, which, being persisted in, perhaps for years, ultimately furnishes fine specimens of Bright's kidney, hob-nailed liver, and rum stomach. It is so easy for such persons to prescribe for themselves when they feel badly, that no one ought to be blamed but the doctor who puts them into the notion.

Very much the same thing may be said with reference to opium. The habit of taking this drug is so frequently the result of the prescription of a physician, that it may be considered the rule. Here, too, thoughtlessness on the part of the prescriber is at the bottom of the trouble. He is perfectly right in giving the opium to relieve pain and to produce sleep, but he does a very wrong thing when he allows his patient to know the article he is taking and the dose. The class of chronic patients to whom opium is given for any length of time are, as a rule, peculiarly fretful and obnoxious to pain. Everything with them is secondary to the relief from suffering; and allow them to know that opium, in one or other of its preparations, is the remedy for their case, and it will be useless to prevent them from prescribing for themselves whenever they suffer from the slightest unpleasant sensation. We know, however, that some physicians allow even a greater latitude—use no more discretion in prescribing opium for a patient than they would in recommending the same quantity of whiskey—that is to say, they give them virtually a free license to use opium whenever they may feel inclined so to do. When this is done, very little is needed with most temperaments to confirm a habit which, generally speaking, is the hardest of all to break. No physician needs be told that the inevitable result of the practice is a gradual increase in dose, and that the poor victims will obtain the drug in the very face of the most stringent laws against the sale of poisons. Each apothecary's establishment has its own particular set of customers for the article, and it is impossible to turn them empty away. So numerous are the opium-eaters, that it would be safe to say that they can be found, not only in every city and town, but in every village and hamlet throughout the country; and when the profession contemplates the fact that the vast majority of these have commenced the practice with a prescription, it becomes us not only to reproach ourselves for what we have done, but to use greater care in future. This latter we can do with better advantage in the case of opium than in that of whiskey. With the latter we may limit, by positive directions, the exact amount of the

dose, and the times when it should be taken—but the patient cannot fail to know at the same time what he is taking. With opium, however, he need not be possessed of such a knowledge; the dose can be properly regulated under any circumstances, and the medicine can be also entirely suspended at the option of the practitioner.

The physician may claim that he has nothing whatever to do with the morals of the community; but this is true only so far as they do not bear upon the abuse of the articles used as medicines. It is as much his concern to see that whiskey and opium are not more abused by his patient than other articles of the materia medica. Very often, by his persuasion alone, a sufferer is urged to take stimulants freely and for an indefinite time, and not unfrequently in the end drifts into abject drunkenness, under the delusion that the doctor's instructions are being obeyed to the letter. The medical man dares in such instances to overthrow the moral scruples of a patient, and he must not shrink from a moral responsibility in the premises. The profession are not temperance lecturers, neither are they expected to stem the tide of intemperance, to uphold excise laws and the like; but they have it in their power, by the exercise of a very little care and trouble, to directly prevent much of the improper use of stimulants. We will not go so far as to say that stimulants are given too frequently, for this is not the point. All other things being equal, stimulation may be carried to the very extreme; but we hold that when it is done, and a drunkard is the result, the doctor is to blame. If opium is administered in the same manner, the result to the patient is equally as bad, but the prescriber is even more culpable than in the case of whiskey.

Reviews and Notices of Books.

THE HOME PHYSICIAN, a New and Popular Guide to the Art of Preserving Health and Treating Disease, with plain advice for all the Medical and Surgical Emergencies of the Family, etc., etc., based on the most recent and highest authorities in the several departments, and brought down to the latest dates. By GEO. M. BEARD, A.M., M.D., Lecturer on Nervous Diseases in the University of New York, Member of the New York County Medical Society, one of the Authors of the Medical Use of Electricity, etc., with numerous Illustrations. New York: E. B. Treat & Co., 654 Broadway. 1869. 8vo., pp. 1066.

THE PHYSICAL LIFE OF WOMAN: Advice to the Maiden, Wife, and Mother. By GEO. H. NAPHEYS, A.M., M.D., Author of Compendium of Modern Therapeutics, Member of the Philadelphia County Medical Society, etc., etc. Philadelphia: Geo. Maclean. 1869.

THE necessity for properly informing the people upon medical topics has frequently been alluded to in our columns, and we deem it our duty, whenever there is an indication of progress in this matter, to make note of it. Two works are before us having this aim, one on general medicine, by Dr. Beard, the other on a special subject, the physical life of woman, by Dr. Napheys.

The Home Physician is, in our opinion, the best work upon the subject that has ever been published. Calculated for such as are beyond the ready reach of medical advice, it is full, from beginning to end, of intelligible, judicious, and conscientious advice. All that is necessary for a non-professional person to know in an emergency is given, and the limit fixed beyond which he should not attempt to go without the advice of a competent medical man. Dr. Beard has added not a little to the intrinsic value of the work for the general reader by the incorporation of some original essays upon general topics relating to medicine, prominently among which may be mentioned those on Stimulants and Narcotics and Diet. Some of the special departments have been worked up by other medical gentlemen; for instance, an admirable account of Diseases of the Eye and Ear is given by Dr. Roosa, an equally concise and clear treatment of the diseases of women is presented by Dr. J. B. Hunter, Dr. B. Howard gives an account of his method of resuscitating drowning persons, Dr. Griscom talks of Hygiene, and Dr. E. Harris is ready with his Statistics.

Each of these gentlemen contributes to the general utility of the work. In the hands of persons of ordinary common-sense, the book must do a great deal of good, but with others with whom a "little knowledge is a dangerous thing," much harm may come. We make this latter remark in connection with many of the more potent, nay dangerous remedies, whose actions, uses, and doses are given.

Of the general make-up of the work we have nothing but commendation to offer. It is written in an attractive and popular style, and all the advances of science are lucidly and truthfully exposed.

Dr. Napheys, in his work on the "Physical Life of Woman," has acquitted himself with infinite credit. The subject, which for a work of its size takes a very wide range, is treated in choice, nay elegant language, and we have not noticed a single expression upon the most delicate matter that could offend the most refined taste. There are, too, a great many interesting historical facts connected with the general topic, both in an ethical and physiological point of view, which show much discrimination in their production, and a good amount of sterling scholarship. To the medical reader there are many points in the book that are worthy of attention, prominent among which are the remarks bearing upon the right of limitation of offspring. Although there may be a great deal of truth in what is said upon the subject, no one can escape the conviction that the advice, given as it is to females at large, is injudicious. Yet, when the only remedy against large families which is recommended is sexual abstinence, our author cannot be held for any great practical results. We notice that he is a firm believer in maternal impressions, in the pre-determination of the sex of the child at the time of conception and in superfœtation, but as the acceptance of his view will not be any detriment to the reader, it needs no extended comment. We sincerely hope that for the real benefit to American women it may meet with a hearty reception, and be productive of great good in preventing many of those diseases now so rife in the community, which are solely the result of ignorance of the ordinary laws of female hygiene. No one, however scrupulous, need fear to admit the work within the pale of his family circle, and place it with confidence in the hands of his daughters.

SLEEP AND ITS DERANGEMENTS. By WILLIAM A. HAMMOND, M.D., Professor of Diseases of the Mind and Nervous System and of Clinical Medicine in the Bellevue Hospital Medical College, New York, etc., etc. Philadelphia: J. B. Lippincott & Co. 1869. 12mo., pp. 315.

THIS monograph having been for a long time out of print, comes to us in a new edition. As its title indi-

cates, it treats of a most interesting and important subject, and it is unnecessary to say to those who are fortunate enough to be acquainted with the author's writings on other subjects, that it is handled with the ability and skill of a master hand. For the most part the views which are advanced are original, and the direct result of extensive experimentation. In this connection we particularly refer to insomnia, which is proved by the writer to be the result of an excess of blood in the brain, and *per contra* that natural sleep is only induced when, relatively speaking, there is a temporary anæmia of the organ. Upon this assumption is based the explanation of the action of the true hypnotics, foremost among which he ranks bromide of potassium, oxide of zinc, and opium, in moderate doses. In the milder forms of wakefulness our author lays great stress upon the necessity of avoiding the recumbent position; the use of cold to the head, and warm baths. This outline of the main feature of the work cannot, however, give the reader any adequate idea of the vast amount of useful and suggestive facts that, as collaterals, are scattered through the brochure. Our inability to do full justice to it in this respect, on account of space, prompts us the more to recommend it to the careful study of every practitioner, with the assurance that he will be not only much instructed, but profoundly interested.

A COURSE OF PRACTICAL CHEMISTRY, ARRANGED FOR THE USE OF MEDICAL STUDENTS. By WILLIAM ODLING, M.D., F.R.S., Fellow of the Royal College of Physicians, Lecturer on Chemistry at St. Bartholomew's Hospital. With Illustrations. From Fourth and Revised London Edition. Philadelphia: H. C. Lea. 1869. 12mo., pp. 254.

THE experience of many years in instructing students in the operations of the laboratory has enabled our author to furnish a model hand-book, which has kept its reputation as such for many years. In the fourth edition, now before us, a number of minor improvements, suggested by still further experience in teaching, have been effected. It is convenient in size, and is thoroughly practical throughout. As it now stands, it holds the same relation to the laboratory as a dissector does to the dissecting room. It is well illustrated with first-class wood-cuts.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, DEC. 8, 1869.

DR. L. A. SAYRE, PRESIDENT, in the Chair.

DEATHS FROM HEART DISEASE.

DR. FINNELL presented a number of specimens, ten in all, for which he was mostly indebted to Dr. Cushman. Four of these were hearts and attachments removed from the bodies of persons who had died suddenly.

The first was a fatty heart, which had been the seat of acute pericarditis; the pericardial sac contained four ounces of colored serum, and showed in several places commencing fibrinous adhesions. The deceased was forty-two years of age.

The second heart, taken from a man æt. thirty-eight, had connected with it a ruptured aneurism of the arch of the aorta. The artery immediately above the semilunar valve was decidedly atheromatous. The pericardium was of course filled with blood.

The third heart was fatty, was removed from a man aged forty-five, and showed rupture of right auricle.

The fourth heart was healthy, but showed its aorta to be the seat of an aneurismal dilatation and extensive atheromatous deposit. No other cause for death was found.

A fifth specimen was the uterus and ovaries removed from the body of a woman aged forty-five, who died of intemperance. Its point of interest was the commencement of an ovarian cyst and a fibroma of the uterus.

PLACENTAL DECIDUA.

The sixth specimen was the uterus taken from a woman twenty-five years of age, who, after giving birth to an eight-month fœtus, died in puerperal convulsions. She was attended by a nurse who refused to send for medical assistance. The womb showed a large portion of the placenta still adherent. There was no account given of any extraordinary hemorrhage.

DR. ROGERS thought that the mass in the uterus might be the placental decidua. It was accordingly referred for microscopical examination.

CENTRAL RUPTURE OF SPLEEN.

A seventh specimen was a spleen with a central rupture, removed from an intemperate woman forty-five years of age, whose death was supposed to have been caused by her husband. From the appearance of parts no definite conclusion could be arrived at. The peritoneal cavity contained at least two pints of clotted blood. In the same individual was, in Dr. Finnell's opinion, a well-marked example of amyloid degeneration of the liver.

DR. ROGERS was in doubt as to the latter condition of things, and moved its reference to the committee on microscopy.

SUICIDE.

An eighth specimen consisted of portions of integument from the walls of the abdomen, removed from a woman aged thirty, who, while suffering from the despondency of advanced phthisis, committed suicide by stabbing herself. There were two penetrating wounds of the abdomen, and there was a large lacerated one of the flexure of elbow caused by twisting the knife blade in different directions. The brachial artery was severed, but a comparatively small amount of blood was lost, sufficient in her already-prostrated condition, however, to cause death.

A NEW TREATMENT OF CARCINOMA UTERI BY A "MAGNETIC DOCTOR."

The ninth specimen comprised the uterus, bladder, and surrounding tissues, taken from the body of a woman, aged thirty-five, the mother of seven children. When five months advanced with her eighth child, she began to suffer from distress in the region of the bladder and uterus. She applied to several medical men for advice, and the diagnosis of cancer of the womb and bladder was made out. No hope for cure was held out, and nothing but palliatives was advised. Not satisfied with this, she decided to consult a notorious magnetic doctor of Brooklyn. He undertook to relieve her of all her troubles, and, as usual with such pretenders, referred to a number of successful cases which were precisely similar in character to the one in question. His method of treatment in this particular case consisted in rubbing the spine with one hand and the abdomen with another, precisely ten minutes at each time. After each interview she came to her home feeling very much worse; still she persisted until the miraculous touch was repeated twenty-five times. The quack affirmed that all the physicians were in the wrong, and that the disease, instead of being cancerous, was "a

simple watery tumor" of the womb, of which, in his extensive experience, he had already seen quite a number. After the last rubbing, which was quite a severe one, she suffered a great deal, and returning home was seized with labor pains, and the liquor amnii very soon afterwards escaped. The husband, on hearing this, ran with joy to inform the doctor that the tumor had broken, and he was comforted with the assurance that everything was going on as it should, and, after prescribing something to relieve her of immediate suffering, the quack promised to be over the following day to see her. The labor, however, went on in spite of the medicine, and a dead child in the eighth month was delivered. The poor patient never fairly rallied, and died within three or four days afterwards.

Dr. F. stated that although the woman had been examined by several eminent physicians after the fifth and sixth months of utero-gestation, none suspected its existence.

The certificate of death attracted the attention of the Board of Health, and a coroner's investigation was the result. At the autopsy, made by Drs. Finnell and Cushman, the os uteri was far advanced in cancerous disease, as also the bladder. It was evident that the woman would have died a natural death in a short time, but it was equally plain that, had she been left alone, she would have given birth to a full-grown child.

The "magnetic doctor" was summoned as a witness before the coroner's jury, but came armed with an attorney. In answer to several questions he stated that he had never attended medical lectures, never received any medical education, and did not pretend to be anything more than a magnetic doctor who could treat dropsies. He used only a few medicines, but these were of great power; for example, one which he called the "*apis mellisseris.*"

The verdict was to the effect that the deceased came to her death as the direct result of gross ignorance on the part of this man, with the recommendation that the Kings County Medical Society prosecute him for practising medicine without a diploma.

THE CASE OF RICHARDSON.

The tenth and last specimen consisted of the stomach, portion of the liver and kidney, duodenum, and portion of the sternum removed from the body of a man whose death was caused by a gun-shot wound. The entrance of the ball was just below the xiphoid cartilage and a little to the left of the median line. Its direction was downwards and outwards, passing through the left lobe of the liver (about ten inches from its anterior free margin); thence through the stomach midway between the cardiac and pyloric orifices, and about half an inch below the lesser curvature; thence through a portion of the ilium, just below the stomach; thence downwards and outwards it grazed the left kidney and lodged in the lumbar region a little above the crest of the ilium. At the autopsy, thirty-two ounces of bloody fluid were found in the peritoneal cavity. There were extensive adhesions of all the peritoneal surfaces in the vicinity. After the individual was shot, he ascended two flights of stairs and lay down some little time before he began to suffer any great distress. Dr. F. referred the rest of the history of the case to Dr. Sayre, who had been in attendance.

Dr. Sayre stated that he saw the gentleman a few hours after the injury. He had been vomiting blood previously, and was still suffering from that symptom. It was very evident that the stomach had been wounded, and perfect quiet was enjoined. A hypodermic injection of morphine was administered, and the patient slept quietly until one o'clock the following day. He was perfectly conscious, and remained so for some four days. Up to that time he had been nourished by enemata, but there being an impression among his friends that the stomach had not been wounded, nutritious material had been given by the mouth. This conviction was founded upon the result of a microscopical examination made by Dr. Holcombe. The ball was discovered by the patient himself in the situation already described, and when there was a distinct pointing as the result of its presence, it was easily extracted. About this time, on the fifth day, pus in considerable quantity was vomited. During the first forty-eight hours he was troubled a great deal with a desire to pass his water, but this symptom disappeared afterwards. At the end of the fourth day his bowels moved naturally. Finally he began to grow weaker and weaker, and, death appearing to be imminent, he underwent considerable excitement by his marriage, immediately after which he commenced to sink very rapidly, and died within twenty-four hours. None of the contents of the stomach escaped at any time from the wound, due to the fact that it had been partially plugged by the wad.

In connection with this case Dr. Sayre referred to one of Dr. Forman, of Kentucky, who to all appearances had been wounded in the same way, and who recovered. He had also received a letter from Dr. Gray, of Illinois, in which a very similar case was described, which occurred in the army of Tennessee. This one had also recovered.

FIBROMA OF CERVIX—OPERATION AND DEATH.

Dr. Little presented an abdominal tumor, part of which had been removed, by operation, from an unmarried female forty-four years of age. She commenced to enlarge about four years ago, but the growth of the tumor did not occasion any inconvenience until a year ago, when she was advised by a physician in the country to come to this city for the purpose of having an operation performed. She was first admitted to St. Luke's hospital, but was afterwards transferred to a private house. On her arrival in the city a short time ago, she measured forty inches in circumference below the navel. Fluctuation was distinctly discernible. She was also examined by Drs. Peaslee and Thomas, both of whom concurred in the opinion that it was a case of ovarian tumor, and an operation was accordingly advised. Present at the operation, Drs. Peaslee, Thomas, and Weir. The incision was made in the usual way, and a considerable number of adhesions were discovered anteriorly. No distinct pedicle could, however, be detected, the tumor seeming to rise from the pelvis itself in all directions. It was deemed proper to puncture the sac and reduce its size in order to discover its attachment with more certainty. After the evacuation of a portion of its contents it was two-thirds of its original size, but no more light was thrown upon the case. A portion of the sac was then pulled through the wound, cut off, the clamp applied, and the wound closed by silver sutures. She lingered for about ten days, and died of exhaustion.

Dr. Delafield had examined the specimen, and had come to the conclusion that it was merely a fibrous tumor of the uterus, springing from the cervix, and undergoing cystic degeneration. In conclusion, Dr. Little remarked that the history of the case taught no lesson which might prevent a similar mistake in future.

OVARIAN TUMOR.

Dr. Cutter likewise exhibited an ovarian tumor. In his case the patient had commenced to enlarge five

years ago. The diagnosis of unilocular ovarian cyst, complicated with ascites, was made. All the usual symptoms were present. The incision was made in the usual place and in the usual manner. The pedicle was free, three inches long, and two inches wide. The clamp was first applied, and subsequently a ligature, and that secured in the corner of the wound. The patient did well until the fourth day, when symptoms of peritonitis set in, and she died on the fifth.

The tumor was examined by Dr. Knapp, who pronounced it a pure fibroma. This character of tumor of the ovary appears to be very rare.

Dr. Cutter, in answer to a question propounded by Dr. C. C. Lee a few meetings ago, in reference to the frequency of pure epithelioma of upper lip in a female, presented a specimen in point. It had been removed some four months before from the upper lip of a female, and had been examined by Dr. Knapp and found to be true epithelioma.

IDIOPATHIC MENINGITIS.

Dr. Lewis Smith presented the brain of an infant, aged three months, who died at the Infants' Hospital, Randall's Island. This child was bottle-fed, and, like most of its class, soon became affected with diarrhœa. This condition, by the by, continued until three or four days of its death. About three weeks before its death, it began to grow unusually fretful, and, although no diagnosis was made at the time, it was probable that meningeal trouble was commencing; unfortunately no history of the case had been kept. Three days before its death, it became drowsy, and continued so until the end. There were attacks of convulsions the last day.

At the autopsy, two ounces of transparent serum were found in the cranial cavity. At the base and external portions, nearly to the vertex of the brain, was a fibrinous deposit. It also dipped into the Fissure of Sylvius. That portion of the meninges concealed by the deposit, on its removal, presented an intensely injected aspect.

The point of interest in connection with the specimen was that no tubercular deposit could be found in any part of the body. This was then a case of simple meningitis. He remarked that almost all of the children who die before the end of the first year of meningitis do not have the tubercular variety; while almost all who die after eighteen months have the disease associated with tubercles in other parts of the body.

DEVELOPMENT OF PLACENTA.

Dr. W. B. Lewis reminded the Society that on a previous occasion he had made some remarks as to the time when the human placenta becomes fully developed. He wished to present two specimens of ova, which would tend to substantiate the statements alluded to.

The first was from a lady who ceased to menstruate on the 10th of July last, and the ovum made its appearance on the 10th of September following, so that it was calculated that utero-gestation had advanced to the eighth week. At the previous meeting, he had said that the placenta was fully developed; on subsequent examination, however, some of the tufts of the chorion were still found, proving that the growth of the organ as such was not yet quite complete.

The second ovum exhibited was discharged by a lady who had been married just six weeks. She had passed over the only menstrual period that had occurred since her marriage, and about the time the second catamenia was due, she underwent considerable excitement while travelling through the city on her way north. As a consequence, abortion took place, and the specimen came into his hands. The fœtus was about one month old, and showed the umbilical vesicle, the amniotic membrane, the caudal extremity, and buds which were to constitute the future arms and legs. Numerous tufts of the chorion were also to be seen.

Dr. Rogers thought that as a rule the question of time as to the perfect development of the placenta was not of as much importance as the degree of vitality of the uterus and ovum. In some cases he could easily conceive that it might require but six weeks, while in others three and a half months might elapse before the last vestige of chorion disappeared.

ANEURISM, ETC.

Dr. Whitall exhibited a specimen of aneurism removed from a colored woman fifty years of age, who had been under observation for three years at the Colored Home Hospital. Very little was known of her previous history except that she had had rheumatism. During the time she was under his care she complained chiefly of pain in the precordial region, extending occasionally to the back. The heart was found to beat in the fifth intercostal space four inches from the median line. Its impulse was forcible. There was a double blowing murmur, most intense at base. She also had Bright's disease, for which she had been treated accordingly. Her paroxysms would return in general at intervals of three months, but during the past year they were more frequent. About six weeks before her death the pain increased in great intensity and the heart beat with great violence. The murmur was found to be much more distinct than formerly, and being attended with considerable febrile action endocarditis was suspected. The alkaline and anodyne treatment were employed, and she got better. About one week before her death she complained of a very distressing throbbing at her back. Aneurism was suspected, but a careful examination elicited only a negative result. There was, however, considerable dulness over the hypogastrium. The abdomen at large presented well-marked fluctuation, which could be transmitted downwards to the finger in the rectum. By rectal examination fibrous tumors on the posterior wall of uterus were discovered. There were no murmurs posteriorly and no unusual pulsation anywhere.

The day before she died she was seized with vomiting, which was attributed to uræmia, and she was placed upon hydragogues and it stopped. The following day, while sitting in bed, there was a sudden gush of blood and death occurred instantly.

Autopsy.—The heart was small, weighed eight and a half ounces, the aortic valves were thickened but not contracted, and there was atheroma of the aorta. The heart was tilted out of its place by a tumor underneath, and in attempting to remove the left lung, which was firmly adherent to the diaphragm, this tumor, which afterwards proved to be an aneurism, was opened into. This aneurism, partly thoracic and partly abdominal, had ruptured during life through the pleura and into the lower lobe of the left lung, which was found completely gorged with blood. The lower portion of the right lung was to some extent in the same condition.

The eleventh and twelfth dorsal vertebræ, against which the aneurism rested, had their bodies deeply eroded, but the intervertebral substance was perfect and intact.

The kidneys were the seats of Bright's disease; the left ovary had a commencing cystic tumor, and the uterus contained thirteen fibrous tumors.

He remarked in conclusion that aneurism was exceedingly common among colored people; more so than with the whites, for the reason probably that almost

every negro had had some time or other constitutional syphilis.

Dr. Cutter remarked that while fibrous tumor of uterus was very common among colored people, ovarian disease was very rare. This fact had been impressed upon his mind by a remark made by Spencer Wells, in Philadelphia, who, in examining a negress with an abdominal tumor, diagnosticated fibroma of the uterus by exclusion.

Dr. Sayre called attention to the perfect condition of the intervertebral substances in the specimen presented, proving the power which they possessed of resisting ordinary morbific agencies.

TUMORS OF OMENTUM IN BILLIARD PLAYERS.

Dr. Sayre then presented a tumor of the omentum removed post-mortem from a middle-aged man who consulted him last July. On examining him a tumor was found in the left ileo-lumbar region, the nature of which could not be made out, but from his general cachectic aspect it was suspected to be malignant, and he was told that little could be done for his relief. The growth occasioned the patient no special inconvenience, and had only been accidentally discovered by the patient a short time previously. He afterwards consulted a notorious homœopath, who told him it was nothing but a "wind tumor," and that he would cure it in a short time. The patient continued to grow worse under the treatment. Dr. Carnochan was called in consultation at the end of six weeks, but to no avail, and he died shortly afterwards.

After death, at the request of the family, Dr. Sayre made an autopsy. He found the deceased emaciated almost to a skeleton. It seems that during the last days of his life he had been physicked to an alarming extent, and was allowed to drag himself five or six times in the day to the water-closet until he finally sank from exhaustion.

The abdomen was very much sunken, and on opening it the peritoneum was found perfectly dry. No omentum could be seen, but in lieu of it was a small mass in the left ileo-lumbar region which was adherent to the abdominal walls, and marked the site of the tumor felt during life. He was of the opinion that it was cancerous in its nature.

In connection with this case he remarked that this was the third tumor of the kind that he had met with in that situation, and from the fact that they all occurred in prominent billiard-players he was inclined to associate the bending over the table with the cause.

PENETRATING FRACTURE OF TIBIA.

He lastly related the case of a man who suffered from a penetrating fracture of the middle and superficial portion of the tibia. The patient had presented himself that day at the hospital with a fluctuating point in the situation alluded to, and in cutting down upon it a small triangular piece of depressed bone was discovered in the medullary canal of the tibia, and being loose was easily removed by aid of the rongeur. The accident was occasioned by a chip from an iron wedge, which while being driven into a rock flew off and struck the man in the leg.

Dr. Markoe remarked that penetrating fracture of the skull was not uncommon as the result of bullet wounds, but such a lesion in the leg must be very rare.

There being no other specimens for presentation the Society went into executive session.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Adjourned Stated Meeting, December 21, 1869.

Dr. George T. Elliot, Jr., President, in the Chair.

ARTERIAL SEDATIVES.

Dr. John C. Peters said that he had been requested to give the results of his personal experience and observation with regard to this class of remedies, and that he should do so in a somewhat desultory way, without having arranged the matter of his remarks. Before speaking of special drugs, he would say a word of arterial sedatives in general, and of the indications for their exhibition.

Arterial sedatives might be divided into those which act directly upon the vaso-motor nerves and the motor nerves of the heart, and those which affect them indirectly by modifying the constitution of the blood. Those of the latter class were oftenest demanded, for most frequently the heart owed its increased frequency or force of pulsation to the irritant character of the blood coursing through it. This irritant character might be due to absorption of miasmatic, somatic, or other poisons, or to retention of the products of physiological or pathological disintegration. For example, the formic and acetic acids of the perspiration might be thrown back into the circulation by the action of cold upon the skin. The lactic acid of such muscles as lay near the surface might be similarly repelled; and there was probably enough of this in the system almost to acidulate the blood. Hence it was reasonable to conclude that many inflammatory affections, like pneumonia, for instance, partake much oftener than is commonly recognized of a rheumatic character, and require, of course, such arterial sedatives as act upon the skin and kidneys to eliminate the acid, as well as alkalies to neutralize it. In the contagious fevers, on the other hand, such as scarlatina, typhus, etc., the blood was excessively alkaline, and the urinary and other secretions rapidly became alkaline and putrescent. Here the cooling vegetable acids, or phosphoric and other mineral acids (as the dilute sulphuric preferred by Dr. Flint in typhus), should be employed. It would almost seem as if we were going back to the middle ages, and the days when all diseases were accounted either acid or alkaline. Perhaps those old theories had in reality elements of truth in them which we were too prone to ignore.

In inflammations and fevers we should consider the immense destruction of tissue going on in every part of the body, and the effect of this in throwing a great amount of effete matter into the blood. Eliminant sedatives should, therefore, not be forgotten in their treatment. We should remember, also, that in inflammation the walls of the capillaries are apt to become so relaxed as to allow the passage through them, not only of the pure nutritive blood-plasma, but also of these products of disintegration, and even of the blood-corpuscles themselves, thus exciting fresh irritation. This might extend to the lymphatics (which should normally convey away from the tissues only the superfluous and unappropriated plasma), from their having forced upon them the unwonted office of carrying such irritant materials; and lymphangitis might be the result. Phlebitis and pyæmia might arise in a similar way. In our choice of sedatives, we should seek as far as possible to avert these dangers.

Since, in inflammations, the inflamed part acted like a furnace, and heated the blood passing through it till it might raise the whole volume of blood several degrees above the normal standard, refrigerant sedatives were

called for—the simple salines, cooling drinks, cool air in the room, and possibly the external application of cold water, although this last the speaker did not himself employ.

Tonics and stimulants might almost be accounted arterial sedatives in low forms of fever and in the early stages of convalescence, since they served to diminish the irritability of the circulatory system by improving its tone. It was a curious illustration of the tendency of the human mind to run to extremes, that, upon the known value of stimulants in the conditions just named, Anstie, Todd, and their followers had based the doctrine, which they were still strenuously asserting, that these were of use in every form of pyrexia; that the more sthenic the inflammation, the hotter the fever, the more freely we should pour in alcohol. The speaker had in 1842–43 given some attention to the effect of alcohol upon the hectic fever of tuberculosis. He had then been told that tubercle was rarely found in the post-mortem examinations of those who died from excessive drinking, and this statement seemed to be sustained by a large number of cases collected by himself and others. Still he had felt chary about the employment of alcohol in consumption, and in the few cases where he had given it it was oftener to his regret than to his satisfaction—not that he now believed this remedy without value, but that he had not then known how to restrict its use.

From the above considerations it was evident that it would not answer to have one or two favorite arterial sedatives, and bring them out in every case of strong or frequent pulse; but the cause of the circulatory excitement must be carefully made out, all its attendant conditions regarded, and the remedy selected to meet the special indications.

Dr. Peters now related *in extenso* his observations upon the action of special remedies, interspersing them with reminiscences of hospital experience twenty or thirty years ago, in Berlin, Vienna, Leipsic, and our own city. Our space limits us to brief mention of a few points.

Tartar Emetic had been the favorite sedative with his first preceptor, who used it almost exclusively, though with a master's hand, and was wont to say that he got as much music out of it as Paganini out of his one-stringed fiddle. How it was used, or how extensively, need not be dwelt upon. A glance over Wood's Practice would tell the story. The aim was not to produce nausea or to prostrate the patient, but gradually to stimulate the secretions; and, with care, the drug might be pushed even to the extent of inducing diarrhœa, and yet no nausea attend it.

Some twenty-five years ago, the speaker had for many months watched the effects of *Digitalis* as prescribed by Schönlein in his wards at Charity Hospital, Berlin. Schönlein was as famous in Germany as Trousseau in France, and he used digitalis as freely as did Trousseau belladonna, declaring that he should not know how to practise medicine without it. He always pushed it until the scanty, clear, dark-colored, acid urine gave place to an abundant excretion with copious deposit. He was never satisfied with the "crisis" through the skin alone, but must have it through the kidneys; and when the desired effect was brought about, and the medicine suspended, the diminished temperature and less frequent pulse would continue for six days or thereabouts. Until lately the speaker had attributed these effects to the digitalis; but Niemeyer's recent teachings about these crises in the natural history of pneumonia had led him to revise his opinion. Schönlein's clinics were constantly illustrated by the test-tube and the microscope, which were very skilfully used, in spite of the imperfect knowledge of that day. Again and again had the speaker seen erysipelas diagnosticated from rheumatism by the urine alone. (A convenient mnemonic for the normal quantities of the constituents of the urine was the number, twenty-four, the most of them being, very nearly, either multiples or aliquot parts of that number, in grains, counting the urine of twenty-four hours at forty-eight ounces.)

Aconite Dr. P. had employed almost daily since 1839; indeed, as a boy he had been as familiar with it as most lads with castor-oil and ipecac. Reducing the circulation, it promoted especially the secretion of the skin, and might be assisted in this action by the addition of antimony, or other diaphoretic sedatives. Digitalis, on the other hand, was most useful when we wished to act on the kidneys, and might be advantageously combined with colchicum and the alkalies. In 1845 Alexander Fleming had treated fully of aconite as an antiphlogistic. The latest herald of its virtues was Sidney Ringer, who spoke of its power to abate inflammation and subdue the accompanying fever, by depressing the circulation and temperature, as nothing less than marvellous. It could not remove the products of inflammation, but in the early stages prevented their formation, and thus it was of use so long as an inflammation was extending. Under its action, when properly exhibited, the dry and burning skin would in a few hours become moist and cool; then a profuse perspiration appeared, and the severer febrile symptoms were at an end. Ringer gave from half a drop to a drop of the tincture of the root every ten or fifteen minutes for two hours, and then every half-hour or hour afterwards. This frequency of administration seemed to Dr. P. not only fussy, but also dangerous.

Veratrum Viride would efficiently control the pulse and temperature while its influence was kept up, but as it had little or no effect upon the emunctories, the disease returned with its original force when the remedy was discontinued. While, therefore, it might be valuable as an adjunct to other treatment, or to produce a transient impression upon the system, it was less commonly useful than aconite or digitalis; moreover, it was more dangerous.

The action of *Colchicum* upon the heart and arteries was similar to that of aconite or digitalis. But its most important action was one it had in common with quinine, that of preventing the formation of uric acid in the system. It had been demonstrated that a twenty-grain dose of quinine would diminish this formation by one-half, and the speaker was confident that colchicum either did the same thing or changed the uric acid into something else. It was doubtless in this way that it acted as a prophylactic against gout in high-livers. Intelligently employed, it was as sure a cure for gout as quinine for fever and ague.

All the above remedies were heroic and dangerous, and for the majority of cases they were no better than the milder and perfectly safe ones, such as the saline refrigerants. In simple fever or pure frank inflammation, with acid secretions, the *alkalies* would usually effect sedation about as well as the more powerful remedies (though these could be added if necessary), while their important accessory properties rendered them the best basis of treatment in a large class of affections. By increasing the alkalinity of the blood, they tended to prevent plastic exudation. When this had taken place, and the products of inflammation showed a tendency to permanence and organization, this might be used alone or with the addition of the iodide of potassium, or, as the Doctor preferred, the bromide, which he thought had all the sorbefacient powers of the other. Their value in rheumatism, and the probable frequency of the

rheumatic tendency, had been already adverted to, while as renal or cutaneous depuratives they were among the best.

In conclusion, the Doctor spoke of the effect of the narcotic sedatives in producing a venous condition of the blood, the opposite of the arterial condition obtaining in acute inflammations—an effect which he thought might have some connection with their action in preventing and subduing inflammation.

Dr. Austin Flint, Sen., being called upon, touched on one or two points. Alcoholic stimulants were an excellent example of the class of remedies which, in certain states of the system, become indirect sedatives to the circulation. In adynamic febrile conditions he had repeatedly seen their use, in pretty large quantities, bring down the frequency of the heart-beats. On suspending the stimulant for a few hours to watch the effect, the pulse would mount up again; and on resuming it, the reduction would again be observed.

As regarded the direct sedatives, they should be selected with reference to the special kind of sedation desired. For example, in the symptomatic fever attending the early stage of acute inflammation, it might be desirable, while reducing the frequency of the heart's action, to reduce also its force. Tartar emetic would serve this double purpose, and so might other nauseants. In other cases, as in certain valvular lesions of the heart and in fatty degeneration of that organ, we might wish, while diminishing the frequency of the pulse, to augment its power. In such cases the speaker had found digitalis meet these two indications in a remarkable manner.

Marey's experiments with the sphygmograph had shown that the heart's action was affected by the degree of arterial tension; so that it might be possible to act upon the heart by remedies addressed directly to the vaso-motor system. But what effect has the increase or diminution of the heart's action upon such a morbid condition as inflammation, for instance? How much is gained, in such a condition, when we have succeeded, by some remedy which has no injurious effect on the system, in diminishing the frequency of the pulse? Does this produce a favorable effect upon the local inflammation; and if so, in what mode, and to what extent? An illustration in point was the effect of veratrum viride in pneumonia, in which Dr. Peters had said it would diminish the heart's action and conduce to the comfort of the patient, but would not affect the progress of the inflammation except by retarding it. These questions had not, perhaps, been as yet sufficiently considered.

Dr. Chadsey spoke of the value of the bromide of potassium as an arterial sedative; of the too-often-slighted virtues of venesection; and of the unequalled merits of emetic tartar, in esteem for which he fully coincided with Dr. Peters' old preceptor.

Dr. J. C. Nott said that in yellow fever, typhus, and all other affections where the tendency was for death to begin at the heart, veratrum viride acted as a poison, and its use was extremely dangerous, even although the pulse might be so frequent as to make reduction desirable. But he had found much good from it in sthenic pneumonia and diseases of that kind, and he was pretty sure that he had seen pneumonia aborted by it in rare instances. The remedy was untrustworthy, often disappointing one; and its use should be confined strictly to sthenic inflammations.

Drs. Ramsay, Raborg, Peters, and Whitehead referred to their varying experience with the bromide of potassium in delirium tremens and other affections.

The President, referring to the expectant and nutritive treatment of delirium tremens, which Dr. Peters had advocated, said that he had found it work admirably with the hale old sailors on the Dreadnought, where the surgeon in charge used to say that seventy-two hours was a sovereign cure. But coming with this idea to treat the broken-down old "bummers" received at Bellevue Hospital, he had found his seventy-two hours sometimes more than sufficient for the case to end in death, perhaps from uræmia, the effect of old Bright's disease. So in this affection, as in most others, we must study all the conditions of each case, and treat it on its own merits.

Dr. Pomeroy had frequently seen disastrous effects from overdoses of aconite, taken by mistake or prescribed according to the rules of the text-books. In his experience this drug was almost always given too freely; and he could hardly imagine a patient taking five drops of Fleming's tincture every hour, without serious consequences. But in small doses, frequently repeated, its action was most happy. In combination with colchicum and iodide of potassium, he had found it of great service in rheumatism. Its special tendency to act upon the throat made it valuable in acute tonsillitis and other inflammatory affections of the fauces.

Dr. Caro had tried aconite on a man suffering from purpura hæmorrhagica, hæmatemesis, and meningitis. The pulse being strong, he had given one drop of the tincture every two hours, and it had paralyzed his patient.

Dr. Peters said that a case of purpura hæmorrhagica was the very last one in which he would use aconite. This drug tended to cause fluidity of the blood; and, in cases of poisoning, it produced large vibices on the surface and soft clots in the great vessels. But if the Doctor would use it in cases of an exactly opposite class—in those of sthenic inflammation, with excess of fibrin—he would doubtless often find it serviceable.

The Society adjourned.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

Annual Meeting, December 7, 1869.

Dr. S. T. Hubbard, Vice-President, in the Chair.

SECRETARY'S REPORT.

Dr. Burrall, Recording Secretary, presented his Report, as follows:—

To the Board of Direction:

The Recording Secretary has the honor of respectfully submitting the following Report.

The *Reunions* of this Association have become so marked a feature in its progress, that it will not be amiss to give a list of the subjects which have been considered at them during the past year. [This list we omit, as we have so recently given in the Record (Nos. 86 to 89 of current volume) a summary of the year's proceedings.]

This list shows a remarkable variety of subjects; and it is well known that some of the best articles which have appeared in our Journals are papers which had been previously laid before this Association. There is, indeed, some reason to believe that the Association has not been without its influence in encouraging the increasing interest in medical literature which has been evident, for the past few years, in this city.

The largest number present at a reunion during the season has been 40; the lowest (on a stormy evening) 17; the average attendance 32.

Your Secretary might offer, at the close of this, the most prosperous year of the Association, the above array of subjects as his report, and allow it to present its own claims. Still, it may be well to enumerate, with-

out enlarging upon them, what are believed to be the chief attractive features of this institution.

1. It represents the whole profession, and each member has a common proprietorship in its transactions.

2. Parliamentary business, although it may be necessary in other medical societies, is generally tedious; and in the Journal Association it is avoided by leaving all business matters in the hands of the Board of Direction.

3. The scientific and social character of the reunions, and the informal discussions. The reunions have also a decided practical value, as the subjects considered are usually those which are at the time prominently before the profession.

4. The large amount of reading matter furnished for a small subscription.

At the same time it must be remembered that there are many members [the Association numbers about 200] who do not frequent either the Reading Room or the Reunions, contributing with the creditable spirit of aiding whatever they believe to favor the advancement of the profession.

F. A. Burrall, M.D.,
Recording Secretary.

OTHER REPORTS.

The Report of the *Librarian*, Dr. A. E. M. Purdy, showed that the Association had on its shelves 640 bound volumes and 500 unbound. It was constantly receiving donations of books and engravings.

The *Treasurer* was unavoidably absent; but in his behalf the statement was made that the Association was in a better financial condition than ever before.

ELECTION OF OFFICERS.

The following are the officers elect, being with one or two exceptions the same who have served for the past year:

President, Dr. Isaac E. Taylor; *Vice-Presidents*, Drs. Samuel T. Hubbard, Alfred Underhill; *Recording Secretary*, Dr. Frederick A. Burrall; *Corresponding Secretary*, Dr. Emil Noeggerath; *Treasurer*, Dr. Horace P. Farnham; *Librarian*, Dr. Alfred E. M. Purdy; *Trustees, to serve for Three Years*, Drs. William N. Blakeman, Henry D. Bulkley, James L. Banks, John C. Peters, Alfred E. M. Purdy.

The meeting adjourned.

Correspondence.

OBSTINATE RESISTANCE TO PASSAGE OF URETHRAL INSTRUMENTS.

To the Editor of the Medical Record.

Dear Sir—I send you a report of two cases of stricture of the urethra which obstinately resisted the introduction of instruments, until the patients were brought under the influence of an anæsthetic, when they unexpectedly yielded to the passage of large instruments. The first case was complicated with the presence of a stone in the bladder.

Case 1. Mr. L., a merchant about 35 years of age, had been suffering for several years with symptoms of vesical irritation. I saw him on the 24th April, 1854, and obtained from Dr. Lente, his attending physician, the following history of his case. In the year 1844, he contracted gonorrhœa, which having been inefficiently treated ran into gleet, which continued to annoy him for a year or more. In 1846, he felt symptoms of stricture; frequent desire to pass urine; stream contracted and tortuous, and some scalding during micturition. He applied to a physician, who used elastic bougies, and soon dilated the canal to its normal size, when the symptoms disappeared. He had no further trouble until some time in the latter part of 1849, when he began to be annoyed with the desire to pass his urine frequently, and with some scalding of the urethra. The urine was also highly colored, and deposited a reddish sediment which adhered to the bottom and sides of the vessel. The stream was not at that time diminished in size nor tortuous. After a time he applied to a physician, who gave him some mild medicine which afforded some relief. A year or more after this time the symptoms became more annoying, the urine becoming more and more turbid, and depositing a mucous sediment, the desire to empty his bladder becoming much more frequent, and micturition more painful. His physician suggested the probability of stone; but did not attempt to sound the bladder, and contented himself with the exhibition of palliative remedies, as Spt. æther. nitros., Tinct. ferri mur., &c. He then consulted another physician, from whom he obtained a balsamic mixture from which he derived no relief. He continued to grow worse, his constitution having begun to be impaired, until the latter part of 1852, when he first applied to Dr. Lente. His condition at that time was very distressing, though he continued to attend to his business, and took considerable out-door exercise. He was generally compelled to rise every half hour or hour in the night to pass his urine, and in the day he sometimes found it necessary to do so every fifteen minutes. Sometimes the stream would be quite large, and at others small and twisted, He complained of scalding and pain while passing it; but of no particular pain after the bladder was emptied. The urine deposited a quantity of thick, whitish, ropy mucus, above which was a white, floating, cloudy deposit. The urine had a slightly acid reaction. The prostate gland, on examination per rectum, presented a somewhat enlarged and irregular feel, with slight tenderness on pressure. There was some pain in the lumbar region. The patient was not conscious that he had ever passed any calculi or gravel.

Dr. Lente immediately suggested the propriety of examining for stricture or stone; but on attempting to pass an instrument of medium size, the irritability of the urethra was found to be so great that it was impossible to reach the membranous portion; the patient was in imminent danger of fainting. Dr. Lente, therefore, prescribed some anodyne and palliative remedies, and directed him to introduce himself an elastic instrument, so as to accustom the urethra to its presence. This he tried for some time, but succeeded badly. Dr. Lente again attempted the introduction, and came to a full stop near the membranous portion, the irritability of the part being such that he could not bear any prolonged attempt to pass the instrument. The chronic inflammation of the bladder appearing to be the principal disease, and the patient having the full power to evacuate the bladder, Dr. Lente directed his attention to the relief of the inflammation. He accordingly prescribed Buchu, Pareira Brava, Uva Ursi, &c., also various anodynes and counter-irritants, which were apparently useful in diminishing the frequency of the desire to pass urine, and the pain in voiding it. Sometimes he would only be obliged to get up twice or thrice during the night. In January, 1853, Dr. Lente sent him to me for advice. I advised that he should be put under the full influence of an anæsthetic, and that while he was in that condition an attempt should be made to pass a sound into the bladder. Dr. Lente administered the vapor of ether, until the patient was in a complete state of anæsthesia, and then made

several ineffectual attempts to pass a steel and a silver instrument; but he succeeded in introducing a conical French flexible bougie, No. 3, quite into the bladder. On withdrawing the instrument, it was grasped quite firmly, and as the resistance yielded there was a grating sensation communicated to the fingers, as if the instrument were passing over a gristly band, or over a rough stone. This sensation Dr. Lente felt repeatedly afterwards, and several times mentioned to the patient that it felt like stone. He repeated the anæsthetic and the introduction of flexible instruments, fifteen or more times, sometimes as often as twice or thrice a week, never introducing the instrument without the ether, owing to the extreme irritability of the canal. The introduction of instruments was continued until the canal was sufficiently dilated to admit the passage of a bougie No. 12; but Dr. Lente could never by the most persevering efforts get any inflexible instrument through the membranous portion, nor could he pass even a flexible instrument into the bladder, unless it was extremely slender at the point. The patient also tried repeatedly himself, after the largest instrument had been introduced, and the canal had become somewhat accustomed to its presence, but he was unsuccessful in his efforts. After the dilation of the canal, the most urgent symptoms were relieved, and the patient was able to attend to his business with some comfort. But after some months he became worse again, and was induced to come to New York for advice. The physicians to whom he applied tried to introduce instruments of various kinds, and failed. They ordered medicines similar to what Dr. Lente had previously given, and opened a nitric acid issue in the perineum. The patient thought that he derived some benefit from these remedies. About the first of March, 1854, the patient applied again to Dr. Lente, complaining more than ever of the same symptoms which he had when he first came under Dr. Lente's notice, with this difference, that he felt most pain immediately after passing his urine. The urine presented its normal color, but deposited mucus abundantly, and a copious whitish cloud having the appearance of pus; the urine had also an ammoniacal odor. Near the end of February, he had passed a calculus about as large as a pea, which was regular and smooth except where it was broken, and which Dr. Lente judged from its appearance to be phosphate of lime. As the patient continued to suffer more and more, and as the disease was of such long duration and complicated character, Dr. Lente wrote me a note asking my advice as to the course to be pursued. I recommended that an anæsthetic should be again administered, and that a full-sized metallic instrument should be passed down to the stricture, and if the obstruction could not otherwise be removed that a perineal incision should be made through the stricture, and the instrument passed on into the bladder; that the patient should then be sounded, and if a stone should be detected that lithotomy should immediately be performed. Shortly after this time I received another note from Dr. Lente, requesting me to visit the patient, and to perform whatever operation might be necessary. I accordingly visited the patient on the 24th April, as mentioned at the beginning of this report. I found him confined to his bed, feeble and emaciated, with a pulse over 100, and everything in his physical aspect indicating that his constitution had suffered severely from the protracted irritation which he had endured. I directed him to be placed in the position for lithotomy, with his hands bound to his feet, and as soon as he was in a state of anæsthesia I introduced a staff, No. 11, which, to my surprise, passed on with very little difficulty into the bladder. I at once recognized the presence of a stone, and proceeded to the operation for its removal. I first made a crescentic incision across the perineum an inch in front of the anus. I then opened the membranous part of the urethra with a sharp-pointed bistoury, after which I passed along this groove of the staff the button of my double prostatotome, and carried it on into the bladder. Having withdrawn the staff I pushed on into the bladder the canula armed on each side with a knife, thus making a free bilateral incision into the neck of the bladder. On withdrawing the instrument I introduced my finger through the wound into the bladder, and felt a stone of very large size. I seized the stone with a forceps, and crushed it with the instrument while attempting its extraction. I seized successively different fragments, which in like manner were crushed by the instrument. Finally, after many attempts, I succeeded in removing all the fragments which I could find. Some of these fragments were very large and others quite small. A considerable portion of the concretion was reduced to powder, and intimately mixed with blood and mucus. The fragments and powder which I collected, after being washed and dried, weighed eleven hundred and seventy-five grains. With the fragments I removed a fleshy mass which was larger than a pea, and which had evidently been sliced off from the prostate. Some of the fragments were examined by Prof. J. W. Draper, and were found to consist of phosphate of lime.

When the patient recovered from the state of anæsthesia he complained of severe pain and soreness in the wound and in the bladder.

In a letter dated April 28th, four days after the operation, Dr. Lente wrote as follows: "You will be glad to hear that Mr. L. is doing remarkably well; he was relieved of pain half an hour after you left him, and has had almost no pain since. He sleeps better than he has done for two years, and without any anodyne whatever; his spirits are good; his pulse and appetite also; he has now no night-sweats."

A few days later I received from Dr. Lente the following communication: "Mr. L. is still progressing favorably; indeed, I have been astonished at the change which a few days' relief from the sufferings of the past year has wrought in him. His complexion has changed from the pale, sallow hue, to a comparatively clear, florid tint; his spirits are good, his appetite craving, his sleep natural and refreshing, and not attended with night-sweats; he gets out of bed without assistance to have his clothes changed, and suffers no pain or inconvenience in doing so. The day after the operation, I passed a silver catheter through the urethra into the bladder, without inflicting much pain, and injected a quantity of warm water, which gurgled out through the wound, and brought away minute particles of sand; the operation was grateful to the feelings of the patient. A few days after, I again introduced the instrument without difficulty. He takes farinaceous diet, with milk, eggs, &c.; he has required no stimulants." His convalescence from this time was uninterrupted, and he was speedily restored to a condition of perfect health.

Case II.—L. P., of Strafford, N. H., ætat. 54, was brought to my clinic by his physician, Dr. McDonald, on the 6th July, 1869. He said that he had never had gonorrhœa, nor any mechanical injury of the perineum. For three years past, he has had pain and difficulty in passing his urine, and it only comes by drops. I passed a variety of bougies into his urethra, but could not introduce them beyond the anterior part of the membranous portion. I directed him to call at my house after two days, when I would renew the

attempt. July 8th, 10th, 12th, and 14th.—At each of these dates I attempted to pass bougies, straight and curved, flexible and inflexible, large and small, but failed to go through the stricture. But the patient stated that his urine was passed with more ease and comfort than before the treatment was commenced. July 16th, I introduced a curved steel bougie, No. 5, as far as the stricture, and then passing my left index finger, well oiled, into the anus, I pressed up the point of the bougie, and depressed the handle of the instrument, using a moderate degree of force, when the point of the instrument seemed to penetrate the stricture, and pass on into the bladder. I withdrew the instrument, and then introduced, in the same way, a steel bougie, No. 8. I followed this by an introduction of a silver catheter, of the same size, but no urine flowed through it. I then withdrew the catheter and found the eyes clogged with blood. Having removed this obstruction, I again introduced the instrument, when the urine flowed freely through it. July 17th, I again introduced a steel bougie, No. 5, with some difficulty. July 20th I introduced No. 5 again with rather more difficulty than before. July 23rd, the patient having been sent to St. Luke's Hospital with the view of undergoing Syme's operation, I had him etherised, and I then introduced a steel bougie, No. 13, with the view of accurately defining the depth of the stricture, when, to my great surprise, the instrument passed on without obstruction into the bladder. I then introduced No. 15, and afterwards No. 16 in the same manner. The last instrument entered with a trifling feeling of obstruction; on withdrawing it, it seemed to be a little more tightly embraced by the urethra. I advised Dr. McDonald to take the patient home, and to introduce a steel bougie, No. 12, twice a week for a few weeks, and after that time once in two weeks during the remainder of his life.

Nov. 3rd, 1869, Dr. McDonald reported to me that the patient, on returning home, had had a chill followed by some febrile excitement, and by swelling in the perineum; these symptoms, however, had soon passed away. Since that time he had passed his urine with perfect freedom, and the cure of the stricture seemed to be complete. He had not introduced the bougie as I had recommended him to do.

This case was interesting from the fact that the patient had suffered from a severe and obstinate stricture, not preceded by gonorrhœa, nor by any mechanical or chemical injury of the urethra. I do not remember that I have ever known any other case of severe stricture, of long duration, where neither of the above-mentioned causes had preceded the attack.

The two cases above related appear to me worthy of being recorded, as they tend to enforce the practical lesson that in all cases of stricture of the urethra, where difficulty is encountered in the introduction of bougies, anæsthetics should be employed as auxiliaries in the treatment.

Respectfully yours,

ALFRED C. POST.

291 MADISON AVENUE, NEW YORK.

The above report was read before the New York Journal Association on the evening of Nov. 19th, 1869.

CARBOLIC ACID.—Two or three drops of carbolic acid added to a bottle of ink will prevent mould; and about 30 drops added to a pint of water used for making paste will have the same effect.—*Jour. of Chemistry.*

CEMENT FOR VESSELS WITH VOLATILE FLUIDS.—According to Hirzel, a paste of finely powdered litharge and concentrated glycerine makes a good cement, which hardens very readily.

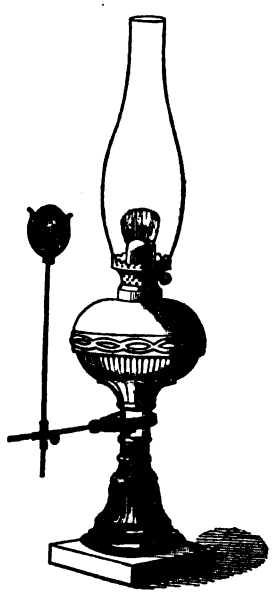
New Instruments.

CONDENSING LENS FOR ORDINARY LAMPS.

BY O. D. POMEROY, M. D.,

NEW YORK.

THE accompanying cut is intended to represent a condensing lens applied to any luminous object, as a gas-jet, a candle, or, as here represented, a common kerosene lamp. Attached to an Argand gas-burner or a German student's lamp, it is nearly or quite as good as any of the more expensive apparatuses, as Tobold's, or others of its class. It consists of an adjustable clamp for attaching to any object, from the size of a gas-tube to a large kerosene lamp; attached to which is a round horizontal arm for the vertical arm to slide upon, so as to adjust the lens properly. The vertical arm is surmounted by a clip which contains the lens. It is here figured the size of the lens in an ophthalmoscope case, or of those ordinarily used in fitting spectacles. The clip may, however, be enlarged to any convenient size. By inspection it may be seen that by elevating or depressing, or sliding nearer or further from the light, the lens may be adjusted opposite the brightest part of the flame, and at a convenient distance. Ordinarily



Otto & Reynders.

I would use a lens of from 1½-inch to a 3-inch focus, and place it a little nearer the light than its principal focus—that is, a 2-inch lens placed a little nearer the light than two inches, so as to render the emergent rays slightly divergent, in order to afford a wider range of rays for collection upon the reflector.

There is no reflector attached to this instrument, for the reason that I believe it is much more convenient to use the forehead mirror instead, or, as in examining the membrana tympani, the ordinary hand mirror. In laryngoscopy or rhinoscopy the forehead mirror is, of course, to be employed.

This instrument may be also used in examinations of the os uteri. If the lens is not large enough for that purpose, it is very little trouble to place a larger clip in the place of the one figured here.

With a kerosene lamp by the bedside of the patient, with the lens attached, and a forehead mirror of 8 or 9-inch focus, a very careful and easy examination may be made, and the surgeon's hands left free to operate. It is claimed that this simple instrument is in some respects superior to Tobold's. The latter consists of a tube containing three convex lenses, and placed before the luminous object. It is arranged on correct optical principles so as to collect the whole of the rays emanating from the flame upon one side, but as the light passes through three lenses instead of one, many rays are lost. Beside this, the mirror in Tobold's instrument is usually placed near its extremity, preventing the focussing of the illumination at the point inspected—the throat, for instance. There is also greater difficulty in adjusting this instrument for work.

It has been stated that it is desirable to exclude the light so as to pass only through the condenser. I think this has not the least necessity, having used the above instrument in my practice sufficiently long to determine the point. It may be asked, why use a condenser at all? when a concave mirror, by focussing reflected rays, renders the illumination as intense as any reflected rays may be—that is, of less brilliancy than the original source of the reflection. I answer, the difficulty is, the focussed flame is, as is every flame, itself uneven; that is, an Argand burner is brightest at its edges, a candle has its intensest part a little above its centre, and so on. A concave mirror, it is true, magnifies a reflected flame if placed sufficiently near, and the shorter its focus the larger the image; but at a convenient distance from a flame for making an examination the reflected flame is minimized, and these uneven portions are consequently a source of greater disturbance.

The condensing lens renders the focussed spot the veriest trifle less brilliant than if no lens were interposed; but the illumination is *perfectly even and of much larger size* than that produced otherwise. The focussed spot is perfectly circular, and a little smaller than the lens used. For rhinoscopy and inspection of the membrana tympani, I have found the above very convenient size sufficient.

The flat flame of an ordinary gas-burner or kerosene lamp, if placed edgewise to the lens, affords almost too intense an illumination, but if the lens is placed somewhat obliquely to it, the size and intensity of the flame will be very satisfactory. I think that it may be confidently recommended, from its cheapness and ready adaptation to so great a variety of burners, as a fair substitute for the larger and more complex instruments in use.

Medical Items and News.

Very Old People.—The following names of old persons are gathered from obituaries and registers of various kinds: John Locke, aged 110, died in Larling, England, in 1823. Betty Roberts, who was born in Flintshire in 1749, and was living at Liverpool, in 1859, with a brisk young son of 80. The age of 111 has been claimed for the Rev. Richard Lufkin, who died at Ufford, in Suffolk, in 1678, and who preached a sermon the very Sunday before his death. The age of 113 is claimed for Michael Boyne, who died in Armagh in 1776; Mrs. Gilliam, who died in Aldersgate street in 1761; and the Rev. Patrick Machell Vivian, Vicar of Lesbury, who was born in 1546, and wrote a letter in 1657 (when 111 years old), in which he said, "I was never of a fat, but a slender mean habit of body." If we want evidence of the age of 114, we are referred to a tombstone in Mucross Abbey, Killarney, which bears the epitaph, "erected by Daniel Shine, in memory of his father, Owen Shine, who departed this life, April 6th, 1847, 114 years."

Among those for whom had been claimed the age of 116 years, we find Robt. Pooles, who died at Tyross, in Armagh, in 1742; John Lyon, whose death took place at Bandon, in 1761; and Mrs. Mary Power, aunt of the late Right Hon. Richard Lalor Sheil; David Kerrison, a soldier of the American Revolution, died at Albany, in 1852, at the age of 117.

The age of 120 has been claimed for Ursal Chicken (what a chicken!) who died at Holderness, in 1722; Mr. Charles Cottrell, who died at Philadelphia, in 1761, leaving a wife (aged 115), to whom he had been married 98 years; and a Duchess of Buccleugh, who "lived 20 years a maiden, 50 years a wife, and 50 years a widow," and died in 1728.

Another decade, embracing ages between 130 and 140, is not without its records in the pages of county histories and antiquarian publications. William Beatty, a soldier who had fought at the Battle of the Boyne, in 1690, died in 1774, at the age of 130. Mrs. Keith, who died at Newnham, in 1772, at the age of 133, left behind her three daughters, one of whom was a fair damsel of 109. The venerable age of 138 is put down for John M'Donagh, who died at Ennis, in Ireland, in 1769. The Countess of Desmond was born in the second half of the 15th century; married the Earl of Desmond in the time of Edward IV.; had three complete dentilions or sets of natural teeth during her long career; appeared at the court of James I. in 1614; and was wont to go to market on foot almost down to the day of her death, at the age of 140. A slab on the floor of Abbey Dore Church, Herefordshire, records the death of Elizabeth Lewis, 1715, at the age of 141. Mr. Eckelson, of Ireland, was born in 1548, and died at Phillipstown, in 1696, aged 148. Thomas Parr, called "Old Parr," was born in Shropshire, in 1483, remained a bachelor till 80, married in 1563, lived with his first wife 32 years, became a widower in 1595, married again in 1603, when he was 120 years old, and lived to see the year 1635. He was buried on Nov. 15, 1635, at Westminster Abbey, where a monument was erected to his memory. Henry Jenkins was born in the year 1501, and lived to see the year 1670, when he died at Ellerton-upon-Swale, in Yorkshire, at the age of 169.

There is a tombstone in Conway church-yard, recording the fact that Lowry Owens Vaughan died in 1766, at the age of 192, and that her husband, William Vaughan, died in 1735, at the age of 72.—*London Society.*

Medical College Convention.—To the Trustees and Faculties of the Medical Colleges in the United States:—The undersigned Committee, in accordance with the instructions of the Convention of Delegates from Medical Colleges, held in Cincinnati in May, 1869, respectfully and earnestly invite you to send Delegates to a convention to be held in the city of Washington, on the *Friday* preceding the *first* Tuesday in May, 1870, for the purpose of considering all subjects connected with medical college education, and procuring the co-operation of the schools in carrying out a uniform system of medical instruction. It is very desirable that every regular Medical College in this country should be represented in the convention.

N. S. Davis,
S. D. Gross,
Geo. C. Blackman,
F. Donaldson,
} Committee.

Chicago, Ill., Dec. 22, 1869.

Original Communications.

A FLEXIBLE GUM-ELASTIC CATHETER ESCAPES INTO THE BLADDER,

AND IS REMOVED, TWENTY-TWO HOURS AFTER, PER URETHRAM, BY THE AID OF A LITHOTRITE.

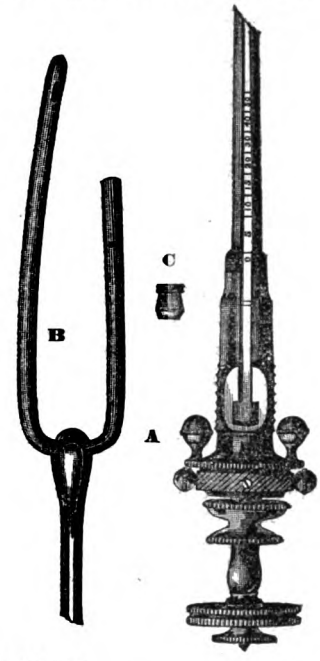
By GURDON BUCK, M.D.,

SURGEON TO THE NEW YORK HOSPITAL AND ST. LUKE'S HOSPITAL, ETC.

Mr. A., a resident of Connecticut, about sixty years of age, suffering with atony of the bladder, was obliged to have a catheter introduced daily.

On Saturday, 20th November, at noon, his physician, as usual, introduced a flexible catheter, No. 7, twelve and a half inches in length, of English manufacture. At the entrance of the bladder some difficulty was encountered, but was readily overcome, and the catheter passed on its entire length till the ivory rim at its outer end reached the meatus. After clearing away some clotted blood with the wire ordinarily used for the purpose, the ivory rim dropped off into the vessel. This occurrence attracted no attention till a moment after, when, on wiping off the parts with a towel, his physician discovered, to his great dismay, that the catheter had disappeared and was out of reach. Twenty-four hours having elapsed since the previous introduction of the catheter, the bladder was distended at the time of the accident, and thus afforded room for the escape of the entire catheter within its cavity.

I first saw Mr. A. fifteen hours after the above occurrence, and found him quiet and unconscious of the presence of the catheter in the bladder from any suffering occasioned by it. The urine still continued to dribble away as before the accident. From percussion of the hypogastric region the bladder did not appear to be very considerably enlarged in size. Digital exploration per rectum could not detect the presence of the catheter in the membranous or prostatic portions of the urethra. The prostate gland itself was found moderately and uniformly enlarged and of firm consistence. I proceeded to introduce a full-sized bougie with a tapering inner extremity, with the view of engaging it in the open outer end of the catheter, if it was still lodged in the urethra. To my no small surprise the bougie passed on into the bladder without encountering anything in the urethra. A large-sized silver catheter was then introduced with entire facility, and the contents of the bladder drawn off, amounting to about three pints of blood-stained urine. Nothing further at the time was attempted. At the expiration of twenty-two hours after the occurrence, another consultation was held with his physician for the purpose of removing the foreign body from the bladder. Our choice of resources lay between extraction per urethram and an incision of the neck of the bladder as for lithotomy. Having been apprised that his physician had suspected the presence of a calculus in the bladder prior to the recent accident, I had provided myself with a duck's-bill lithotrite No. 2, in addition to instruments for extracting foreign bodies from the urethra. I therefore decided first to attempt the seizure and extraction of the catheter with the lithotrite, calculating that it would have become soft and compressible by maceration in the warm urine. After first emptying the bladder with a silver catheter No. 12, I proceeded to introduce the lithotrite, but found it would not pass the neck of the bladder, notwithstanding the catheter had passed with the greatest facility. Attempts to advance it caused severe pain and involuntary spasmodic startings on the part of the patient, which obliged me to abandon further attempts, and think of other means of relief. His physician, however, suggesting that another trial should be made with the aid of chloroform, I willingly assented, and after anæsthesia had been produced, the lithotrite was again inserted, and, to my great satisfaction, passed on into the bladder without the slightest resistance. I now commenced the search by opening the jaws of the instrument and directing them right and left, closing and opening them so as to seize the catheter. The mere contact with the catheter would not, as in the case of a calculus, convey any perception to the hand; it would only be by actual seizure that I would become aware of its presence in the instrument. Soon, however, in two or three minutes, a seizure was effected and became manifest, not by any sensation of compressing a solid substance, but by the slight degree of separation of the blades indicated at the handle of the instrument. Holding the jaws in firm contact, I proceeded to withdraw the instrument, and, on reaching the neck of the bladder, had confirmation of the success of my seizure in the resistance encountered at that point. Carrying the lithotrite over the pubes and hugging the abdomen with the handle, by moderate steady traction I disengaged the jaws of the instrument charged with its contents from under the symphysis pubis, and arrived in the perineal portion of the urethra, and without further resistance advanced to the meatus. I could now distinguish by the touch the doubled catheter along the under surface of the penis. With the thumb and fingers supporting the glans penis on opposite sides of the meatus, I succeeded with moderate traction in disengaging the charged jaws and bringing out the entire catheter, flattened and doubled upon itself in such a manner that one limb was about three inches longer than the other. Softened by maceration in the urine, it had adapted itself in its passage to the varying dimensions of the urethra. No hæmorrhage followed, or other indications of anyinjury sustained by the operation.



A. Duck-bill Lithotrite.
B. Flexible Catheter, as caught by the Lithotrite and brought away doubled upon itself.
C. Ivory rim belonging to the outer end of the catheter.

REMARKS.—The escape of the entire catheter into the bladder is of very rare occurrence, and could scarcely happen unless the bladder itself was considerably distended, as in this instance. In former years, when bougies made of gutta-percha were brought into use, cases occurred in which a few inches of the inner end of the bougie would break off, from the effect of warmth only, and remain behind in the bladder, or partly in the bladder and partly in the urethra. In my own experience, such a case occurred many years ago, about two and a half inches of bougie remaining behind in the bladder. It was removed in the following manner:—After three or four hours of urinary secretion had been allowed to accumulate in the bladder, a duck's-bill lithotrite was introduced and several seizures promptly effected. In urinating the first time after the operation, three or four fragments were expelled, which, on being matched together, made up the entire original fragment.

ON THE DANGER ATTENDING THE USE OF THE NASAL DOUCHE.

By CHARLES I. PARDEE, M.D.,

CLINICAL ASSISTANT IN THE MANHATTAN EYE AND EAR HOSPITAL; MEMBER OF THE NEW YORK OPHTHALMOLOGICAL SOCIETY; LATE SURGEON FOR EYE AND EAR CLASS IN THE NORTHERN DISPENSARY, NEW YORK.

THE treatment of naso-pharyngeal catarrh by means of the nasal douche devised by Professor Weber, of Halle, known in this country, although erroneously, as Thudichum's contrivance, has been quite generally adopted by the profession.

It acts virtually by the temporary conversion of the nose of the patient into the long end of a syphon, which is made complete by the closure of the upper pharyngeal space, the free border of the soft palate being made to hug the posterior wall of the pharynx, as he widely opens his jaws and takes especial pains to breathe through the mouth. While in this position the nozzle of the apparatus is introduced into one nostril, the reservoir being placed somewhat higher than the patient's head, and the fluid finds its way into the upper pharyngeal space, and out by the opposite side of the septum nasi.

Theoretically, this operation thoroughly cleanses the passages; it offers equally good advantages for introducing remedial agents into them, and it is so easily managed that the patients themselves can assume control of the instrument, and cleanse and medicate their own nasal passages.

Practically, none of these advantages can be unqualifiedly admitted, unless, indeed, the last-named be one; and experience teaches that there are dangers attendant upon its use that make it a matter for very grave consideration whether the instrument should not be classed among the dangerous ones, and its use prohibited. This will presently be shown.

The floor of a normal nasal passage is perfectly open, as also is that part which lies between the septum nasi and inferior turbinated bones. A large catheter can be readily pushed along the floor of the passage, while the smallest cannot be passed between the superior turbinated bones and septum, and into the frontal sinuses, without violence, so close are the parts approximated. The space exterior to the turbinated bones and between them is equally narrow.

But in naso-pharyngeal catarrh, the mucous membrane covering the septum and turbinated bones is thickened, and in consequence the opposite surfaces are pressed together.

If by means of our instrument a gentle stream is passed into the nostril, the open space at the floor of the passage will be traversed, but that above, exterior to and between the turbinated bones, will be untouched by the fluid. If we increase the pressure by elevating the reservoir, the mechanical irritation will cause a determination of blood to the part that will temporarily increase the thickening of the mucous membrane, and render the above-named spaces only the less pervious to the passage of the fluid. In either case the object of thoroughly cleansing or of introducing remedial agents into the passages will be partially defeated. It is true, that a little of the fluid may insinuate itself between the turbinated bones, or into the upper nasal space, but so little as to be practically of no use, and if much pressure is used, it is more than likely to cause a severe headache. It is but the floor of the nasal passages that the operation can thoroughly reach.

It is not, however, on the ground of inefficiency that the method should be more particularly criticised.

In a portion of the tract traversed by the fluid in this operation, the upper pharyngeal space, are to be found the mouths of the *Eustachian tubes*, which, by their position, preclude the possibility of practising it with certain safety to the patient, inasmuch as moderate pressure, even, may force the fluid through those tubes into the *middle ear*, while with greater pressure the result is, of course, more likely to follow.

Herein lies the danger; for this system of forcing fluid into the middle ear has been followed by irritation, and all the painful results consequent upon acute inflammation of those parts, as the following cases may serve to illustrate:

The first, which came under the observation of the writer, at the Manhattan Eye and Ear Hospital in this city, is that of J. R., aged 36, a plumber by occupation, and a man of more than average intelligence, who presented himself at the hospital in the following condition:—With the right ear the watch was heard when pressed on the auricle, and the voice, when the tone of it was considerably elevated, and the speaker's mouth approached to within six inches of his ear. It was, however, impossible to obtain any evidence of hearing power in the left ear; it refused to respond to any test. The pharynx was relaxed, and there was considerable secretion from the upper pharyngeal space. The nasal passages were thickened, although but little. There was a perforation of each membrana tympani from suppurative inflammation of the cavity of the tympanum. In the left external auditory canal were large granulations springing up from the bottom of that part, and from the margin of the membrana tympani. There was excessive secretion of pus. In the little groove posterior to the left auricle was a fluctuating swelling, which, on being opened, discharged a large quantity of pus, disclosing necrosed bone, and an opening into the cavity of the tympanum. The condition of the patient was truly deplorable, and necessitated careful and protracted treatment, with but little prospect of great benefit to the left ear, while the danger in which his life was placed by the disease of the bones made the case the more serious and lamentable. From the intelligent and straightforward statement of the patient it was impossible to deduce but one conclusion—that while using the nasal douche, which had been prescribed for the cure of a nasal catarrh, while his ears were sound, fluid had passed into the cavity of the tympanum, and excited therein a purulent inflammation. This conclusion verifies that of Dr. D. B. St. John Roosa, who saw him soon after the accident.

Mr. M——, one of the students in the University

Medical College, has kindly related his own experience with the instrument, as follows:—

"In the latter part of November, 1869, I was one day using the nasal douche with a solution of alum, and neglecting to open my mouth as widely as usual, a drop trickled down my throat. As I involuntarily swallowed, the mouths of the Eustachian tubes of course opened, and I was sensible that the fluid made its way into the tympanic cavity. Quite severe pain followed, which lasted several hours, and left me with impaired hearing. In other words, the accident caused a catarrhal inflammation of the cavity of the tympanum."

This gentleman evidently believes that the involuntary act of swallowing was the primary cause of the accident, as that movement opened the mouths of the Eustachian tubes. Undoubtedly it tends to insure such a result; and every one who has used the contrivance is aware that fluid sometimes escapes from the upper pharyngeal space, and almost necessitates the act of swallowing.

The writer, furthermore, is indebted to his friend, Dr. Roosa, for the succeeding notes of an extremely interesting case that occurred in his private practice—a report *in extenso* of the case having been published in the "*Archives of Ophthalmology and Otology*," Vol. I., No. 1. That journal being in the hands of specialists more particularly, it seems quite proper to reproduce it, as the case is of great value in this connection.

"On the 12th of December, 1868, I was consulted by a clergyman of 49 years of age, who for the past two months had been in the daily habit of using Weber's nasal douche, for the purpose of cleansing the nostrils, and of introducing remedial agents into them. He had once before tried this means of treatment, but it had caused so much unpleasant feeling in the ears that he was obliged to desist from employing it. For about two weeks these unpleasant sensations, on using the douche, have been again experienced. The patient complains of being deaf, and of having a full sensation in both ears, almost amounting to pain. The membrana tympani of each side is found to be reddened. An ordinary ticking watch, heard by a person of normal hearing power about six feet, is heard only when placed in contact with the auricle of each side. In a few days the membrana tympani assumed a normal appearance, and the hearing was restored by means of appropriate treatment.

"On Saturday, February 6th, he again used the nasal douche, and again experienced a decidedly unpleasant sensation in his ears, which, however, did not amount to pain. On Sunday night, at about 11 o'clock, he was awakened by a severe pain in the mastoid region of the right ear, which kept him from sleep. I saw him Monday morning, at about 8 o'clock, and noted the following symptoms:—The countenance was anxious and flushed, skin hot, pulse about ninety-six, right mastoid region red and sensitive, right membrana tympani reddened; watch only heard when pressed upon the auricle. The patient was asked as to the condition of the left ear, but he said there was no trouble there.

"February 8th.—Last night the patient was attacked by a severe pain and swelling of the left foot, and at about 7½ A. M. he had a severe chill, lasting about fifteen minutes; not followed by sweating. At about this time a discharge appeared from the left ear. There has been no pain experienced in this part. He has not slept well, and his general appearance is bad; countenance anxious, breathing labored, pulse about ninety-six. The left ankle and dorsal region of foot are red, greatly swollen, and tender. *Left* membrana tympani ulcerated, and discharging freely.

"Until February 22d his pulse was never over 100, usually about 96; the skin had a saffron hue, and patient lay in a doze, except when the pain from his foot kept him awake. At that date two openings were made in his foot, one near the internal and one near the external malleolus. Pus was evacuated.

"Several openings were made in the foot from time to time; but the patient slowly improved from this time until March 16th, when he was able to sit up. The membrana tympani healed, and the hearing distance became about one foot on the right side, and four to six inches on the left. He quite recovered."

In the remarks appended to this case, Dr. Roosa says:—"The exciting cause of the aural inflammation was, I think, the use of the nasal douche. I am the more inclined to believe this from the fact that on two previous occasions I have seen the employment of the douche cause considerable trouble in the ear. In one instance the membrane of the *drum was ruptured* by its use."

The evidence that the disease in this case was caused by the douche is greatly strengthened by the fact, that on *two* occasions inflammation had followed its use, and had been preceded by similar premonitory symptoms.

At the annual meeting of the American Otological Society, held at Newport, R. I., on the 20th of July, 1869, Dr. H. Knapp, of this city, reported a case of purulent otitis media, with perforation of the membrana tympani, which was caused by the employment of the nasal douche.

Referring to Dr. Roosa's case, he remarked that "Dr. S. Moos, of Heidelberg, in a note to the German translation of Dr. Roosa's paper, confirms the views of the latter author, by stating that he saw the fluid injected into the nostril by Weber's douche flow out of the ears in two cases of perforation of the membrana tympani. In one instance Moos saw also a catarrhal inflammation of the middle ear arising from the employment of the douche."

From the extensive use of the instrument there comes an increasing number of cases similar in character to those just narrated. That fluid, introduced into the nasal passages by means of it, finds its way into the middle ear through the Eustachian tubes, is a fact that cannot be doubted; and the consequences have been so deplorable that it seems as if the proposition to abandon its use should be worthy of the most serious consideration, more especially as it is true that other means of cleansing and of introducing remedial agents into the nasal passages are equally efficacious. A posterior nares syringe will accomplish all that can be expected from the nasal douche, *i. e.*, cleanse the upper pharyngeal space and the floor of the nasal passages; and, moreover, its use is attended with no possible danger. An instrument that shall be simple enough to enable patients to use it at home, and with safety, undoubtedly is a desideratum. The nasal douche is not such an one.

A nebulizer affords an excellent means by which to dislodge the secretion from the upper nasal space, and from between the turbinated bones, and the posterior nares syringe may then be used to wash it out. Through the agency of the same instruments remedial agents can also be introduced.

THE INTRODUCTION OF HYPODERMIC INJECTIONS OF CORROSIVE SUBLIMATE IN SYPHILIS.—Dr. Lewin, of the Charité Hospital, at Berlin, was the first to introduce to the profession the treatment of syphilis by hypodermic injections of corrosive sublimate.

ABORTION.

SUBSEQUENT HÆMORRHAGE FROM RETENTION AND ADHESION OF PLACENTA.

By FREDERICK D. LENTE, M.D.,

OF COLD SPRING.

Mrs. C——, aged 21, married five years, commenced menstruating at fifteen, and was almost simultaneously attacked with leucorrhœa, which has troubled her, more or less, ever since. Health has never, at any time, been good. Catamenia always regular, but too free. For a long time has had pains around hips and in sacrum, much increased by exercise of any kind. Has had two children, one four years ago, and one two years ago. No miscarriage. Has had dyspepsia for a year past, and latterly bronchitis, attended by much debility and emaciation. Has had treatment for these affections. Was called to her Sept. 3, 1869, and found that she had been losing blood continuously from the vagina for two months; but had been going about her duties as usual until the present time, when an increase of the flow, and of the debility, forced her to go to bed. Found, on vaginal examination, the uterus moderately enlarged, the os soft and rather patulous. Prescribed rest and oil of erigeron.

Sept. 5. Saw her last evening, and finding that the flow had recurred to as great a degree as ever (after having been temporarily checked), tamponed the vagina for the night. Removed tampon, and found that I could pass the finger an inch into the cervical canal without difficulty. Diagnosed polypus, or abortion with retention of placenta. Ord. ext. ergotæ gtt. xxv. q. 3 h.

Sept. 6. Was called last evening, and found that the hæmorrhage had continued all day, with constant, dull pain in back. Introduced end of middle finger into uterus, and just touched a solid irregular mass, very high up. Applied sponge-tent, and tampon. Was in a good deal of pain all night. Removed tent, when a considerable discharge of thin, dark, sanguineous matter took place. The os internum has not been much dilated. Introduced a larger and better-made tent. Cont. ergot.

Sept. 7. On removing the tent yesterday afternoon, and on introducing the finger, felt a cylindrical mass of considerable hardness and tenacity projecting into the cervical canal, and that it was continuous with a larger mass firmly adherent to the right side of the body of the uterus. Portions of it were broken away with the finger, and the mass, which was found too firmly united to the uterus to be separated, was broken down and destroyed by the finger-nail as far as possible. No hæmorrhage whatever followed this rough procedure; although a considerable amount of blood was lost during the previous milder manipulations. On examination, the fragments looked more like degenerated placental tissues than anything else, but more tough and fibrous. Placed under the microscope, the specimen exhibited placental tufts in abundance, though considerably altered by fibrous degeneration. Sept. 23. Sixteen days after the operation:—Patient slept all night, was free from pain and discharge the next morning, and has continued so ever since, and has left home on a visit.

Nov. 20. Patient's health is better since her recent illness than it has been for a year, and she has suffered less from uterine symptoms, pain, leucorrhœa, &c.

Dispersion of Uterine Fibroids.—W. L. Atlee, M.D. (*Boston Medical and Surgical Jour.*), has settled down upon the muriate of ammonia as the only agent deserving of any confidence *for the dispersion of uterine fibroids.*

Original Lectures.

A LECTURE ON SOME POINTS IN THE CLINICAL HISTORY AND PATHOGENY OF LOCOMOTOR ATAXY.

READ BEFORE THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK, AT THE MEETING HELD JANUARY 3, 1870.

By MEREDITH CLYMER, M.D.

During the past few years, a handful of workers have investigated with zeal, care, and intelligence, the group of clinical facts familiar to us by the name of locomotor ataxy. Still there is much conflict of opinion concerning its nature, and many of the theoretical imaginings, though ingenious, are unsatisfying, and would seem to need modification or correction. The invitation of the President of the Society gives me the privilege of offering for your consideration some points in the clinical history and pathogeny of this curious disorder. The purpose of these fragmentary remarks is to get an expression of views on these difficult and unsolved problems, and to invite a discussion which may assist towards their right understanding.

The name locomotor ataxy is not a happy one; it sets forth a single objective symptom—motorial incoördination—which is not prominent, even if present, in the early stages, and is not proper to this disease, for it is met with in many other and very various affections. In these instances, however, muscular ataxy is an occasional and not an inevitable sign, often quite transitory, and joined with other phenomena, each series unlike the other, and agreeing respectively with the particular intrinsic lesion. But in the disease we are considering, it necessarily appears, sooner or later, in its course, and is constantly linked with certain morbid expressions having a regular sequence and pathogenetic interdependence, and is, moreover, always related to the same material cause. Few maladies have a more emphatic natural history than locomotor ataxy, or a better right to be recognized as a distinct pathological species.

Let me briefly define motorial ataxy or asynergia:—A centric nervous disease, manifested by certain sensory and motory disorders, as: sight-troubles, transitory or permanent; sudden violent darting, or tearing, or burning, or boring pains, most often in the lower limbs, with other perversions of sensation; impaired adjustment in the several groups of muscles which naturally work harmoniously together in such acts as standing, walking, and handling; muscular power often but slightly lessened; sexual appetite and ability frequently impaired or abolished; nearly always progressive in its course; the anatomical characters being sclerosis of the posterior columns, disintegration of the gray substance of the posterior cornua, of the spinal cord, with atrophy of the posterior nerve-roots, and sometimes structural change in the cranial nerves, chiefly the second, third, and sixth.

Usually an ataxic seeks medical advice in one of two conditions:—(1.) He finds that he gets easily tired after walking, standing, or going up stairs; the fatigue is more rapid and greater from standing than from walking, for many who can still get over a good deal of ground comfortably cannot remain standing for a few minutes, the sense of weariness being so intolerable. Locomotion may be yet natural in its harmony and succession, whilst the attention is fixed on it; but it is no longer merely a mechanical act; unless the limbs are watched the movements lack their accustomed precision, and are awkward and blundering. Walking,

when once begun, commonly ceases to be a cerebral act; but here its continuance requires incessant volitional mediation, cerebral innervation coming in to supplement diminished spinal innervation. The patient, too, will probably complain of not being sure of his legs, of his feet feeling at times as if weighted, of their not "taking hold of the ground," of frequent stumbling, of losing balance on turning round quickly, of some stiffness about his joints, and of difficulty in starting off in his walk. Bid him shut his eyes, and stand with his feet brought together, and he will probably totter; or make him walk with the eyes closed, and he may reel and stagger, or even topple over. At this time the gait is generally peculiar—the steps short and quick, the heel striking the ground first; the characteristic hitchy, catching-up, stamping gait generally comes later, with plantar anæsthesia, giving the feeling as if the soles of the shoes were of wool or sponge, or that the individual was walking through sand, or loose grain, or straw. (2.) In the other instance, the unsteadiness of gait has been first noticed towards evening, or in the dark; there is consciousness of a want of proper control of the legs; the way is felt with hesitation, in perpetual fear of falling over, and there is unwillingness to go about even in familiar places without a light.

Now in these cases there will be most likely a history of ocular troubles, as weakness of sight, defective visual accommodation, or strabismus, or ptosis, or double vision; they may be still present, more or less persistent from their outset, or occasional and recurrent, or may have passed away. Rheumatic aches and neuralgic pains, flying or fixed, will almost certainly have been felt. These pains are very significant; mobile and intermitting, they shoot like lightning or an electric shock through a limb, or the face, or scalp, or some part of the trunk, or genital organs; or they may be only or chiefly in one limb, flashing upwards through it, or localized in some part of it, as the sole of the foot, in which case they are boring or gnawing, or pressing, coming on in spells lasting for hours or even days, and recurring weekly or monthly. They are described sometimes by patients as the toothache in the legs. Sometimes they are fixed, very circumscribed, constant and agonizing, and hinder sleep (tabes dolorosa of Remak).

The sight-troubles and the limb-pains are rarely though at this time connected by the patient with his limb-weariness or his unsteady gait, particularly in the dark; these latter occupy his mind, and make him uneasy from mistrust of threatening palsy.

My own observations have led me to believe that there is a *formative stage* of this disease, betokened by certain symptoms, and which, so far as I know, has not been noticed by writers. They happen some time before the usual initial ocular disturbances, or the pain-spells, or unequivocal unsteadiness of gait, or indeed any of the symptoms usually attributed to the outset of the malady, and are mostly shown in the upper segments of the body. They consist of slight motory deficiencies and sensory annoyances, both often so insignificant as to escape the attention of their subject or his intimates. There will be awkwardness in handling small objects, as picking up a pin, or match, or putting a lead in a pencil, tying a knot, fastening a cravat; the fingers are clumsy and not alert; things are not grasped, held, and taken up with wonted nimbleness and dexterity; they are no sooner seized and lifted than they are dropped; unpleasant sensations are felt in the skin of the face, as the tip of the nose, small areas in the temples, cheeks, lips, and are spoken of as tinglings, crawlings, as if an insect had alighted upon or was moving over the part; there may be occasional deep-seated quiverings of the flesh, particularly in the eyelids, or lips, or cheek; * a feeling of numbness, confined to a small space in one of the lips, or of being suddenly touched there by something very hot or very cold, with a tendency to fall asleep in the arms and legs, when sitting or lying down, giving the sensation of "pins and needles," particularly in the fingers and toes. Some indecision in the motions of both the upper and lower extremities may exist, with occasionally a notion of their being weighted, stiffness of the joints, effort in rising from a seat, weariness after small muscular exertions, with steady aching in the nape of the neck and small of the back, and lessened sexual aptitude. Neuralgia may be occasional, but the ocular disturbances are either wanting or only manifest in the form of defective visual accommodation, or contracted pupils. If experience shall confirm the constancy of an inceptive stage with certain signs, we may perhaps be able to meet this insidious disease at a period before serious structural disorganization has taken place, and successfully check its subtle advances.

The *integrity of muscular power* has been insisted on by Duchenne, C. B. Radcliffe, and others, and held to be a diacritic feature. I believe with Oppolzer, Brown-Séquard, Lockhart Clarke, Benedikt, and Allbutt, that it is always more or less impaired, and that, too, from the beginning. Close attention will show some degree of muscular weakness as one of the earliest phenomena, but in such small degree as to be overlooked unless carefully inquired for. It is true that in very many cases of the developed disease the patient, when lying or sitting, can execute the ordinary limb-motions with promptness and energy; he may lift even heavy weights attached to his feet, and will resist with much apparent show of strength all attempts to bend or straighten his limbs against his will by another; but here, as in walking, extraordinary cerebral interference comes to the aid of lessened spinal ability, and observers have been misled by overlooking this circumstance, as well as by faulty modes of investigation. The real state of motor force in the limbs is properly measured by the degree of perfectness of their quasi-automatic functions, and this is palpably damaged from the outset. The duration of each act of contraction on the part of any muscle, or group of muscles, interested in the given movement is perceptibly shortened, and this accounts for the constant weariness and easily induced fatigue after moderate exercise; and from the necessary lengthened cerebral action results the great exhaustion after any effort demanding large or sustained expenditure of muscular force. Long walks or fitful feats of strength are possible, but these are extraordinary volitional acts, tax severely the brain, are followed by great nerve depression, and are no proper test of the actual amount of muscular power. Another source of error has lately been mentioned by Dr. Brown-Séquard. He writes: "In ataxics, from lesions of the posterior columns of the cord, involuntary spasmodic movements are often mixed with those purely volitional, thus giving to these the appearance of as much, or even more power, as in the natural state; from which follows the assertion that there is no palsy, whilst there really is, and that too often in a notable degree." (Annales de Physiologie, Nor. et Path., t. ii., p. 761, 1869.)

Dr. Jaccoud insists that when the ataxy is well

* Since this paper was read, the writer has been consulted by an ataxic in whom the first symptom noticed was an unpleasant feeling of formication, numbness and twitchings in small areas of the temples. His physician told him that it came "from his stomach, general running down of his system, and smoking cigars." Three months afterwards he "began to lose his hold of the ground."

marked, reflex motility will, as a rule, be found heightened, and that this excess lasts to an advanced stage. This, as a general statement, will, I think, be found incorrect, and that in most cases reflex action is really weakened. But now and then we see instances where it is terribly increased. Let two ataxics be requested to lie down, and each one to put out a leg. In one the act will be done naturally, or nearly so; the limb is practically controlled by the will; the movement stops at the time desired; while the leg of the other will be thrown out, probably striking a bystander, and begin to jerk and jump about, with no ability on the part of the patient to check its extravagance.* In other cases, like saltatory spells may be brought on by rubbing or tickling the soles of the feet, or by applying cold to the limb, or sometimes by only uncovering it, and occasionally they come on without seeming provocation. They are generally attended with anxiety, and back- and limb-pains. Jerkings of the lower extremities, when about falling asleep, are often noticed by ataxics, and one of my patients complained of having had several times general convulsive movements, producing the sensation as if he were suddenly tossed up from a spring-board.

It was first mentioned by Jaccoud, and about the same time by Benedikt, that many ataxics, whilst standing, are subject to involuntary intermittent muscular contractions, particularly of the flexors of the foot, the tendons becoming very prominent on the dorsum, and sometimes so vigorous as to lift the foot from the ground on the heel. This, and the fibrillary twitchings already alluded to, may be referred to the same class of reflex phenomena.

In a large majority of cases there is a gradual *decay of sexual feeling* in both sexes, and which goes on to total extinction. But there are some remarkable instances of extraordinary exaltation both of desire and capacity in the first stage of the disease. Trousseau has related some of these exceptional examples in the male, and Dr. Bouchard tells of a woman in whom, at the outset of the affection, sexual desire became so imperious as to require frequent satisfaction during the day as well as the night; and this state was followed by complete anaphrodisia, coition causing no special sensation. In males, and coincident with loss of desire, or impotency, or hasty seminal discharges, nocturnal emissions are common, and females are liable to dreams with voluptuous sensations. In these conditions I have always found in the male a marked fall in the temperature of the genital organs, and often to a degree readily appreciable by the hand.

The *pulse-rate* is almost constantly quickened in ataxics, and it is important to bear this in mind when deciding on the nature of any intercurrent disorder. In eight cases Dr. Charcot found the mean pulse-rate to range from 90 to 100, and in some it has been between 100 to 124. There is no corresponding increase in the body-heat. Eulenberg's sphygmographic observations show considerable lessening of arterial tension.

I will now briefly mention some epiphenomena which happen more or less often in the course of locomotor ataxy, and which have been studied only quite recently. They have all peculiar traits, and seem to have a direct pathogenetic relation to the disorder.

The *stomach troubles* have been generally overlooked by writers; they have special characters, and are not infrequently intercurrent in the developed disease, though sometimes met with at the outset. These gastric attacks begin with sense of weight and darting pains in the epigastrium, with general abdominal fulness. In a day or so, sometimes sooner, there are hiccup and nausea, followed by repeated retchings and vomitings, the matters thrown up being food, bile, acid, &c. During these spells the limb-pains are worse, and sharp pains dart from the pubes towards the stomach.

Heart troubles may accompany these gastric paroxysms; they consist of sudden and violent palpitations, with painful spasms and a feeling of constriction in the cardiac region. They commonly last but a short time, and during their continuance no *bruit de souffle* or other physical sign is heard.

Very lately Dr. Féréol has published some interesting observations of certain *laryngo-bronchial symptoms* to which ataxics are liable. They will be seized without warning with a spasmodic cough, threatening suffocation, lasting for a few minutes, and then suddenly ceasing, and neither accompanied nor followed by expectoration. I have long remarked that when an ataxic has an ordinary cold, his cough-spells are very distressing, convulsive and obstinate, with a whistling through the larynx, and sometimes crowing back-draughts.

Now in these several organic disturbances the pathogenetic predominance of the nervous element is apparent, and the interesting question naturally suggests itself, what part the sympathetic plays in their production and mechanism.

Drs. Charcot and Ball, of Paris, have lately investigated the symptoms and nature of the curious *joint-affection* which happens in the beginning of the second stage of the disease, or during the interval of the first and second stages, and which hitherto had been regarded as a rheumatic and accidental complication. They have attempted, however, to show that it has no kinship with rheumatism, and is directly connected with the original disease. It occurs without any premonitory indications, the limb suddenly swelling, the tumefaction being more marked about the implicated joint. There is neither redness nor pain, nor constitutional disturbance,* nor increased body-heat The general puffiness is not like ordinary œdema, for there is no pitting on pressure, but, on the contrary, rather resistance. The effusion into the articulation (hydrarthrosis) is large and constant. The knee-joint would seem to be the site of election, with nearly always marked unilateral predominance. In the eighteen observations collected by Dr. Ball the ankle-joint was not once involved, though in Case 2 it is stated that the patient had once sprained his ankle and had never been able to use it perfectly since, with the remark that though at the time it had been regarded as an accident resulting from weakness of the limb, it might have been perhaps a primary manifestation of spinal arthropathy. In one of my ataxics hydrarthrosis of the ankle-joint preceded immediately the outbreak of the motorial troubles. The patient had had severe facial neuralgia and lessened sexual aptitude for some time, when his ankle-joint suddenly became swollen, without redness or pain; this hindered walking, and on applying to his physician he was told that it was a sprain, and treated accordingly; the local symptoms soon went away, but immediately afterwards he had a cottony feeling in the soles of his feet, and his gait became unstable.

The duration of the joint-affection is uncertain; it may disappear after a few weeks, leaving no ill-effects; or it may last for months; and sometimes the morbid processus is indefinitely prolonged, leaving permanent deformities. When recovery is apparently rapid, there

* In these phenomena we have what Dr. Brown-Séquard has called *spinal epilepsy*, which includes those cases of spasms, clonic or tonic, of the lower limbs, which are pathogenetically in direct relation to some lesion of the spinal cord causing exaggerated reflex excitability.

* There was one exception in the eighteen cases collected by Ball.

is always great risk of a relapse. The resulting changes in the end of the bones forming the joint have been described by the opposing terms hypertrophy and atrophy; and this double pathological condition is especially well-marked in the knee-joint. Ossific tumors are developed, while the articular surfaces seem to undergo rapid destruction. In the only case in which there was an autopsy, the cartilages had disappeared, the bony substance itself was, as it were, eaten away, and small osseous excrescences surrounded the joint. As a result of the atrophy of the articular surfaces, irreducible dislocations are often noticed. The effused fluid is not confined to the synovial sac, but extends to the neighboring bursæ, it is in large quantity, citron-colored, serous, and contains neither pus, nor blood, nor albuminous flocculi. Well-marked anatomical differences separate this form of arthropathy from certain other articular affections which have some resemblance to it, but which are in fact very distinct. In spinal arthropathy the peculiar vegetations and phosphatic incrustations met with in chronic arthritis are absent, as well as the augmentation and flattening of the articular surfaces. In the joint-affections following paraplegia, we have the effects of prolonged immobility; the structure of the bones is modified, and the polish of the surfaces is wanting, but the peculiar atrophy is not seen. It has a certain resemblance to the dry caries of Volkmann; for in this, too, there is rapid atrophy of the articular surfaces; but the serious changes in the bony tissue itself, producing the honeycombed cavities lined by a firmly adherent, delicate granulated membrane, which is the anatomical character of *caries sicca*, is not seen in spinal arthropathy. It was, as I have said, for a long while looked on as of rheumatic origin and constitution; but the absence of local pain and redness, and of fever, with natural body temperature, would alone seem to be conclusive of the non-identity of the two affections. Rheumatism, too, is disposed to be migratory, and may invade several articulations successively, whilst in ataxic arthropathy there is a tendency to localization in one joint, or at most in two. When it follows a blow or fall on the joint, which it may do, for ataxics are liable to such accidents, an error may be made; but the evolution of the symptoms is so different from those which usually follow local contusions, together with the sudden general swelling of the limb, that a mistake will be soon corrected. The great deformity of the joint at an advanced period of the arthropathy might suggest white swelling, particularly if the patient has been long confined to bed from the principal disease, and here the diagnosis may offer some difficulty. The antecedents of the case must be taken into consideration as well as the other concomitant symptoms. By recognizing the true nature of the affection Dr. Ball was able to save a patient the loss of a limb, which the surgeon of the hospital had decided on. It is possible to confound ataxic arthropathy of the shoulder-joint with a long-standing, unreduced dislocation; but here there is found under the skin, not the head of the humerus, but more or less complete destruction of the head of the bone.

I can only now allude to the possible *coexistence of locomotor ataxy* and *progressive muscular atrophy*. Cruveilhier, Virchow, Duménil, and Lockhart Clarke have published cases where the two affections were conjoined. It seems to be of rare occurrence, but, as Clarke remarks, when the two diseases are coincident, and the muscular atrophy is extensive, the proper characters of locomotor ataxy may be so modified or obscured as to be either entirely overlooked, or considered as referable to the former disease. On the other hand, there are certain cases of muscular atrophy that at an early stage of the disease might be mistaken for locomotor ataxy; as when wasting of the muscles affects the lower extremities, and though at first scarcely perceptible to the eye, it may yet be sufficient to produce unsteadiness of gait. The researches of Valentiner, Luys, Duménil of Rouen, Schüppel, Clarke, Hayem, and Charcot seem to connect progressive muscular atrophy with a peculiar alteration of the cells of the gray substance of the anterior cornua of the cord. If this be so, it is easy to understand that the morbid processus which determines these lesions, originally limited to the gray substance, or, more exactly speaking, to certain elements of this substance, may by gradual encroachment reach the white columns; or conversely, that the morbid change in the white columns, when primarily affected, may extend to the central gray substance. Now, in the former case, the symptoms of locomotor ataxy would come to be added to the pre-existing phenomena of progressive muscular atrophy; whilst in the second, the amyotrophy, on the contrary, would only appear consecutively as a complication.

Each form of *spinal sclerosis* shows a pretty constant preference for given districts of the cord, yet occasionally the several varieties are found commingled. Cruveilhier published, nearly thirty years ago, a case of multilocular sclerosis of the cord (sclérose en plaques disséminées of Charcot), associated with the special structural alterations of the posterior columns proper to locomotor ataxy, under the caption of "Incomplete paraplegia of motion and sensation, with chronic St. Vitus' dance; extensive gray degeneration of the middle and posterior columns of the spinal cord" (*Anat. Pathol.*, Liv. xxxii., p. 19). In an article of Friedreich on "Atrophic degeneration of the posterior columns of the spinal cord," in Virchow's Archives, 1863, there are two instructive cases recorded, showing the coexistence of the two disorders; and we are indebted to Dr. Bourneville for another observation in the service of Dr. Charcot, at the Salpêtrière hospital (*Nouvelle Etude sur quelques points de la Sclérose en plaques disséminées.* Paris, 1869, p. 205).

Let us pass on to an examination of the mechanism and *pathogeny* of what is looked upon as the distinctive symptom of locomotor ataxy—the so-called motorial incoördination, which has its expression in the characteristic helter-skelter gait. By some it is regarded as depending on anæsthesia, cutaneous and deep-seated; others refer it to impaired reflex action; a few believe it due to the loss of the muscular sense of Bell; whilst Dr. Duchenne, of Boulogne, assumes the existence of a special faculty of muscular coördination, and is still in search of the physiological unit in some district of the brain (*Physiologie des Mouvements Musculaires.* Paris, 1867, p. 791). When we study the minute anatomy of the spinal cord, which we owe to the unwearying investigations of Dr. Lockhart Clarke, and then look at the anatomical characters of locomotor ataxy, it would seem that there is no need to imagine any special sense or psychical entity to comprehend the nature of the motorial troubles.

Before Dr. Clarke began his researches, it was held that the posterior roots of the spinal nerves are attached exclusively to the lateral columns of the cord; he has shown that they are attached immediately to the posterior columns, and not at all to the lateral. This is an anatomical fact of immense import to the pathogeny of locomotor ataxy.

[The course of each of the three bundles of posterior root-fibres through the posterior columns and gray substance, and the passage of some of them into the anterior columns, were explained and illustrated by photographs after Clarke's drawings. The structural

changes in the posterior columns, nerve roots, and cornua, which are constant in locomotor ataxy, and constitute its anatomical characters, were next described, and photographs, after Clarke, Charcot, Vulpian, and Cornil, showing the appearance of these degenerations, and their histology, were exhibited.]

From his investigations Dr. Clarke inferred (1853), that the posterior white columns cannot be the only channel for the transmission of sensory impressions; and this opinion was confirmed by the experiments of Dr. Brown-Séquard made two years after (1855). The amount of damage always present in the posterior columns and posterior nerve-roots must necessarily interfere with their functions, and as a consequence the correlation of the nervo-muscular systems essential to the accuracy and harmony of certain motory acts will be more or less disturbed. Disturbed sensorial susceptibility is a natural outcome from the lesions of the cord; and is found to happen, and constantly too in some degree, from the very outset. Trustworthy observers, as Leyden, Allbutt, etc., affirm it, and such is my own experience, as already stated. The fact of early or constant anæsthesia is denied by many, and even some of those who admit its presence will not allow that it can be the cause of the motorial troubles, and call on physiological experiments and clinical facts to uphold their opinion. It is undoubtedly true that anæsthesia, in the strict sense of the word, may not be manifest in all stages of some cases of locomotor ataxy, and particularly in the initial stage, though motorial derangement may have already begun; for the sensorial modification is more properly described by the term *dysæsthesia*, or still more correctly, *bradyæsthesia* (*βραδυς*, slow). The impression of the peripheral stimulus may reach the receptive surfaces intact, and be there appreciated in its entirety, but there is delay in the transmission, and hence delay in the answer. Several seconds may elapse before a skin irritation, as pricking or pinching the skin, or an electric excitation is perceived. In one of Lockhart Clarke's cases three or four minutes elapsed, and in another there was an interval of twenty minutes before the patient, without being asked, complained of pain from the thrust of a needle (*St. George's Hospital Reports*, vol. i., p. 77, 1866). I have known instances where the galvanic current was not felt for from two to five seconds.* I have seen ataxics, who could not pick up a pin or match at once, or handle a small object, be able to do so after resting the pulps of the fingers on the article for a moment or so, until in fact the impression had been conducted to the perceptive centre. So far, indeed, from anæsthesia proper being present in all cases, there may be hyperæsthesia, and the impression when felt be exaggerated both in intensity and duration. If some degree of dysæsthesia is not found in locomotor ataxy, we may suspect that it has not been intelligently looked for. The adjustment of an æsthesiometer or the compasses, and questioning the patient and receiving his answer, give time for the transmission of the impression in most cases, and in this way the observer is misled.*

The recognition of a derangement of tactile sensibility does not, however, prove that it is the sole factor in the production of muscular disharmony. It is an essential one, but is probably only one of several, which together concur in producing the effect known as motorial incoördination, which has come to be regarded as the type-sign of locomotor ataxy. But it may be asked whether the characteristic objective symptom—the hitchy, precipitate gait—is really an expression of muscular incoördination simply, as is universally set forth, or whether it be not in fact a complex phenomenon. In the beginning there is only unsteadiness and uncertainty in the movements, shown in the ready loss of balance, the trunk oscillations, clumsy, staggering walk, and often fumbling fingers. There is lessened ability to guide the movements. All this is seen in many other affections, and is familiar to us as an effect of alcoholic intoxication. But after a while the quality of the walk is changed; it becomes jerky and spasmodic, and we have the peculiar gait which is proper to locomotor ataxy. The defect of prompt muscular adjustment, noticed in the earlier stages of the disease, may perhaps be properly called incoördination, and marks the period when formative irritation has set in; but the changes in the spinal cord are yet molecular only, or if structurally palpable, are so in a slight degree. The result of the lesion of the cord is a delay in the transmission of the peripheral incitations to the receptive surfaces—dysæsthesia; hence the want of prompt coöperation between the regulating centres and the motor instruments. The balance of relations between the recipio-motor and the dirigo-motor systems, to borrow Mr. Herbert Spencer's terms, which ensure perfectness in complete actions, becomes troubled. When later the posterior columns and posterior nerve-roots are extensively and seriously damaged, new perturbations of spinal mechanism happen; the irradiations† are fitful, wild, and more or less uncontrollable; centripetal impressions and centrifugal impulses travel vaguely, the muscles are in mutiny, and the type-gait is established, and sometimes the extravagances of spinal epilepsy are roused. Still later, when the disorganization of the posterior columns and nerve-roots is complete or nearly so, there is true paraplegia, and the unfortunate sufferer becomes bed-ridden.

Although the progressive structural changes in the spinal cord and nerve-roots may account, in a general way and in accordance with physiological observations,

* One of the hypotheses offered in explanation of this tardy transmission of peripheral excitations attributes the delay to the necessity of their having to pass exclusively through the gray substance of the cord, the posterior columns being more or less damaged; whilst otherwise they would take the more rapid route of the posterior fasciculi. There is an interesting observation of Dr. Vulpian going to sustain this view. In a typical case of locomotor ataxy, the patient, from previous large bilateral hæmorrhages into the cerebrum, was pretty much in the state of an animal in which both hemispheres have been artificially injured. Spinal excitability was increased, and reflex action, unfettered by any brain influence, could manifest itself to its fullest extent. If the skin of the lower part of either leg were sharply pinched, there was almost instantly the evidence of weak reflex action, and the leg was slightly flexed; but after the lapse of a few seconds, a second movement, stronger and of greater extent, of flexion occurred, and lasted four or five seconds. The patient was speechless and semi-conscious, but there was no sign from the expression of the face that the irritation was felt. These second movements were more marked on the side most recently paralyzed.

* Dr. Brown-Séquard has indicated another source of error in appreciating the degree of tactile sensibility in sclerosis of the posterior columns. He takes as an example a case where the lesion is limited to one cord, and involves the whole dorso-lumbar enlargement, of which he has seen three instances. The ataxy is unilateral and in the corresponding limb. On applying the æsthesiometer both points are correctly felt, as well as pinching, pricking, tickling, &c. The conclusion reached is that there is no modification of sensibility. But according to Dr. Brown-Séquard the very fact that tactile sensibility is apparently natural is sufficient to show that it is really lessened, and that too in a high degree; for sclerosis of the posterior columns, as well as other lesions, is a powerful cause of hyperæsthesia; and if the patient does not feel much more distinctly the various impressions made on the ataxic limb, it is because there is really anæsthesia, and that too in the same parts that are hyperæsthetic. If its sensibility seems natural, the reason is that this faculty has lost all it should have gained, if there had not been a cause of anæsthesia coexisting with the cause of hyperæsthesia. It is wrong, therefore, to say that sensibility is natural when it only seems to be so, and we know that it should be increased.—(Archives de Physiologie, &c., t. ii., p. 761, 1869.)

† The phenomena of spinal irradiations consist in the propagation of the motorial incitation to those nervous elements which have not directly received it. If from some cause the excitability of the elements is increased, the irradiated excitation will be more intense and more extended. This is one of the explanations that can be given to account for the untimely contraction of the antagonist muscles.—(Jaccoud, Traité de Path. Int., t. i., p. 886.)

for the characteristic gait and other motorial excesses in ataxics, the precise mechanism of these phenomena has been variously explained, and is still a subject of speculation. Time will not allow me to discuss any of these theories, but I cannot help alluding to the ingenious suggestions of Dr. Lockhart Clarke respecting the influence of the loss, more or less partial, of muscular tonicity, a physiological state dependent on the integrity of reflex action.* This normal tension or tone is defined as that moderate but constant state of contraction that keeps antagonist muscles, or those variously opposed to each other, in equilibrium. In all complicated voluntary movements, a constantly varying number of muscles are balanced against each other in contractions. If some of the muscles of the group employed have lost their tone, they will not properly respond to the voluntary stimulus in the execution of a given movement, and will fail to do properly their part in balancing the effects of the other muscles of the group, whose tension is whole. In proportion, therefore, to the amount of tension lost by any muscle or set of muscles, there must necessarily result a corresponding degree of disorderly movement. The morbid condition of the cord which would cause this lessening or loss of muscular tone, which is subordinate to a sort of reflex action, actually exists, and it is quite probable that the impairment of this property of the muscles may prove one factor in the production of the peculiar gait.

Whatever may be the value of these theories towards the solution of the complex problem of the motorial troubles in locomotor ataxy, they do not help us to a right understanding of the intimate nature of the affection. The genetic cause is still to be sought. The connection between the disorders of the cranial nerves, so frequent at the outset, and later spinal symptoms, with their relation to structural changes in the cord situally remote, without any necessary implication of the intervening nerve-tissue, has not been made out. These phenomena are certainly not accidentally coincident; they are plainly parts of the same morbid processus, whose uniting link is yet wanting. May it not be found with a better knowledge of the physiology and pathology of the sympathetic nerve? The premature senile decay of some ataxics, compared with the persistent vigorous general nutrition of others, is noteworthy, and merits investigation.

[Dr. C., in reply to an inquiry, further said: The *prognosis* is not so gloomy as was once thought. The disease is sometimes arrested. In many there is more or less amelioration of the symptoms; and in a few cases recovery has happened. There is liability to error in estimating the value of any particular mode of treatment, on account of the natural pauses in its progress. The several methods of treatment recommended have been too haphazard and specific; single remedies have been blindly tried and submitted to statistical test. May not our therapeutics gain something by a study of the patho-anatomy and patho physiology of the affection? It would seem that the chances of their success are in proportion to the ability to detect the early morbid errors. Even in the first stages, it is probable more can be done by general than by local measures to arrest its course. Setons, issues, cauteries to the spine, would all seem to be harmful: proper food and clothing very important. Whilst faradisation appears, as a rule, to be injurious, the constant galvanic current, on the other hand, has given some remarkable results. Cases of considerable improvement, and even of recovery, from its use, have been reported by Remak, Frommhold, Cyon, Benedikt, Onimus, and others. My own more limited experience is favorable to it. At my suggestion the calabar bean (physostigma ven.) has been tried in one case, and with apparent benefit to the motorial troubles. The local pains may be ameliorated by cannabis indica, subcutaneous injections of atropia and morphia. When localized and permanent, they are best relieved by chloroform applied directly to the part.]

* British Medical Journal, vol. ii., 1869, p. 844.

Progress of Medical Science.

A New Action of the Spleen: By Prof. Guido Baccelli, of Rome, Italy.—In the *Sperimentale* of Firenze, of last June, the Professor says that the spleen, in the first attacks of malarious fevers, which are very numerous in that region, creates a ravenous appetite.

Through his anatomical, pathologico-anatomical, and physico-pathological experiments, he has found that the spleen, with the adjacent vasa brevia, is to the cells of the pepsinic glands what the vena porta is to the cologenic cells of the hepatic glands. About four or five rectilinear venous vases are connected directly from the spleen to the grand cul de sac of the stomach; those veins have smaller vases intersecting one another, so that the blood may form a kind of equilibrium in this small system.

The deficiency of any valve in this small system would let the blood circulate in a double inverse current, so as to reach at once the gastric, splenic, and medial vascular system.

The gastro-splenic circle shuts up in the hydraulic angle formed by the left coronary vein, and of the spleen, emptying with a downward course in the system of the portal vein.

The veins that from the spleen go to the cul de sac of the stomach are deeply imbedded in it, and the capillary reaches the pepsinic glands.

The pepsinic glands, being connected with the lymphatic apparatus, reënter the venous system and form a circulation from the capillary splenic to the vasa brevia, from the vasa brevia to the capillary of the stomach, in the region of the pepsinic glands, and from those capillaries again to the trunk of vasa brevia.

By this direct communication of vases, from the stomach to the spleen, and *vice versâ*, the spleen, during the first paroxysm of fever, through the increased venous circulation becomes turgid, active, and produces the sense of hunger.

Treatment of Acute Periodontitis.—Dr. C. S. Smith, Springfield, Illinois (*Missouri Dental Journal*), in an extended article on "Alveolo-Dental Periostitis," gives us his general treatment of acute or circumscribed periodontitis: *First*, removal of the irritating causes. *Second*, absolute rest to the tooth. *Third*, local treatment, application of astringent, sedative, or stimulant remedies. *Fourth*, regulations in regard to diet, exercise, &c. *Fifth*, administration of constitutional remedies, such as aperients, &c.

The following is an excellent sedative mixture: ℞ Ether sulph., chlorof., āā, ʒ j.; camph., ℥ ss.; tr. opii, ℥ j.; alcohol, ʒ ij. M. This application, being eminently soothing and palliative, is better, in cases where there is much soreness, than creasote, iodine, or anything stimulating.

The last general indication—the administration of aperients, &c.—is important, especially in severe cases. For slight difficulties, with delicate females, an efficacious gentle aperient may be directed as follows: ℞ Magnes. sulph., ʒ j.; sol. in aqua, ℥ ss.; add this to one bottle of citrate of magnesia, and take as agreeable.

If periodontitis has proceeded too far for resolution, nothing remains but to hurry it on to suppuration, which will probably ensue in from three to six days. The tinct. of capsicum is probably the best local application. The first application may be on a small piece of cotton upon the part. If strong, it will almost immediately relieve by counter-irritation. The patient should be directed to hold it in the mouth at frequent intervals, diluted so as to be bearable.

Roasted figs and raisins, while they promote suppuration, should never be used in the mouth, as the vinous acid contained in them is very corrosive and highly injurious to the teeth.

Large Enchondromatous Tumor of the Metacarpus.—It is in this singular affection that we find the largest osseous tumors. In the majority of those met with in the practice of Professor Paul F. Eve (*St. Louis Med. and Surg. Journal*), the ilium, the maxilla and bones of the hands have been the parts attacked. There is a patient in Missouri who is said to have almost all his bones thus affected, and Dr. E. has seen all those of one hand attacked.

The case now to be described is that of a married lady, *æt.* 69, coming from Dechard, Tenn., and who is of pretty fair health and constitution. She noticed, fifteen years ago, an enlargement of the first metacarpus, which she attributed to shelling corn, and which measured fourteen inches in circumference. The tumor was remarkably tense, painful upon the slightest pressure, with two large projecting nodules still more tense, as if ready to burst, and slightly elastic and fluctuating, but the base very hard. The first right metacarpus was totally involved, but fortunately without affecting its articulations. Agreeing in consultation that amputation at the metacarpo-carpal joint alone promised success, a tourniquet was applied to the brachial artery and ether administered. An incision then opened the largest nodule of the tumor, out of which spurted a gelatinous fluid, and then blood escaped. The finger introduced met with no spicula, cartilage or bone, and when laid open completely, after the operation, the disease seemed to have originated from the interior of the osseous structure or internal surface of the periosteum, and to have expanded, liquefied, and disintegrated the entire metacarpus. The larger mass consisted of a honeycomb structure, or like rotted sponge in lumps varying from the size of marbles or buck-shot, and loosely held together. Etymologically considered strictly, this tumor lacked the *chondrus* to make it enchondroma, for no cartilage whatever was found about its composition, neither was there any recognized periosteum, thus confirming M. Ollier's, of Lyons, opinion of the osteogenetic faculty of this membrane.

Congenital Rachitis.—That this disease commences at an early period of fœtal life, is evidenced by the facts that Osiander observed in a fœtus four months old, and Amand in one of five months, the bones of the extremities distorted and infracted.

The Removal of Acidity from Spirits of Nitrous Ether.—According to Albert E. Ebert (*The Pharmacist*) sweet spirits of nitre, as obtained from the manufacturing chemist, or as met with in the market, is more or less strongly acid, reddening litmus paper, and liberating iodine from iodide of potassium. This is due to the presence of free acids—those of nitrogen, acetic, etc. These can be removed by the use of animal or vegetable charcoal, which renders the spirits of nitre perfectly neutral.

Add two ounces of purified animal charcoal to one pint of spirit nitrous ether, let it stand eight to twelve hours with occasional shaking, and then filter.

Liquor Bismuthi et Ammoniæ Citratis.—Albert E. Ebert, Chicago, Ill. (*The Pharmacist*), recommends to the dispensing chemist the following formula as an easy and practical method for preparing, at short notice, liquid bismuth: Take of sub-nitrate of bismuth, 157 gr., nitric acid (sp. gr. 1.42), 100 gr., citric acid (in fine powder), 150 gr., alcohol, two fluid ounces—water of ammonia, distilled water, of each sufficient.

Dissolve by gradual addition the sub-nitrate of bismuth in the nitric acid; add to this solution the citric acid, dissolved in half a fluid ounce of water, and apply gentle heat if necessary to form a perfect solution; now add the water of ammonia in small quantities at a time, until the precipitate formed is re-dissolved, and the solution is neutral or slightly alkaline to test paper; add the alcohol and sufficient distilled water to measure one pint. One fluid drachm contains one grain of teroxide of bismuth. This strength of teroxide of bismuth may be increased to three grains to each fluid drachm, making it equal with that of the British Pharmacopœia.

Digitalis in Menorrhagia.—J. P. Chesney, M.D., New Market, Mo. (*Leavenworth Med. Herald*), speaks highly of digitalis in the treatment of menorrhagia, and publishes two cases in point: In the summer of 1867, he was consulted by a young unmarried lady, in regard to a menorrhagia from which she had been suffering for a year or more. The patient was of a strumous diathesis, and had been subjected to the trial of the usual remedies. He concluded to try the tincture of digitalis, and it proved of the utmost service; so much so, that in a very few weeks she was in as good health as she had ever been, and continues so to the present time.

In the early part of the present year, a married lady, whose "time of life" had come upon her several months previously, applied for treatment. She had been annoyed incessantly with menorrhagia, from which she became so debilitated as to be wholly incapacitated for her usual household duties. Tincture of digitalis was prescribed, and in a very short time she resumed her domestic affairs as usual. He has used this remedy in other cases of the kind, and also in other affections requiring something to impart tone to the muscular fibres, and he has very seldom been disappointed in observing the best effects from its use.

He believes that it has a specific action in this direction, which is quite different from the power of the remedies regarded as "tonics."

Nitrate of Silver in Erysipelatous Inflammation.—For the successful application of nitrate of silver, the ordinary brittle stick, either solid or in solution, must be used. Not the "lunar caustic points perfectly tough," nor the crystals and cake used for photographic purposes.—*The Practitioner.*

Chloroform with Opiates for the Relief of Pain.—W. Marshall, M.D. (*Glasgow Med. Journal*), recommends the union of chloroform with opiates for anodyne purposes. From 10 to 20 minims of chloroform are combined with one or two drachms of compound tincture of camphor (if the pain be moderate), or 10, 20, or 40 minims of Battley's sedative (if it be severe). This generally produces sleep within a few minutes, and its effects are more lasting than those of an opiate alone, and without its disagreeable after-effects. It should be given in some thickish solution, such as mucilage, otherwise the chloroform will fall to the bottom.

FRACTURE OF THE BASE OF THE SKULL.—Mr. De Morgan (*Med. Times and Gazette*) reports two cases of fracture of base of the skull, from which both patients recovered. In the first case, a tailor, aged forty-five, blood flowed from the right ear for six days, at which time he was still drowsy, and his speech was indistinct. He was discharged from the hospital on the eighteenth day after admission.

The second patient fell, while intoxicated, twenty feet into a stone-paved yard. When admitted into Middlesex Hospital, the pulse was forty and irregular, right eye protruding and conjunctiva ecchymosed, and he was semi-conscious. Paralysis was marked on the third day, with involuntary discharges of urine and fæces. On the twenty-sixth day he was discharged much improved, the pulse gradually increasing until it reached seventy beats. The treatment consisted in absolute rest, purgatives, mild diet, and ice to the head.

CASES OF HERPES ZOSTER.—Mr. Hutchinson (*Med. Times and Gazette*) publishes eight additional cases of *herpes zoster*, occurring after the continuous administration of arsenic, at the Hospital for Skin Diseases. From clinical experience, he is disposed to think that there must be some connection between the use of this drug and the supervention of *shingles*. He reported a similar number in a former number of the *Journal*, most of them observed in his own practice.

THE POISON OF THE TARANTULA.—Dr. Paolo Panceri has recently made some experiments concerning the poison of this spider, reputed so terrible by the celebrated Roman physician Baglioi. These results are thus recorded in a recent number of the *Italian Archives for Nervous and Mental Diseases.*

"Professor Paolo Panceri, in a note recently read at the Pontonian Academy of Naples, after alluding to the fabulous stories which have prevailed concerning the accidents produced by this spider, indicated the manner of treatment, and then made known the results of some experiments made with the venom of this insect. Having procured two of the tarantulas of Pouille, of a variety especially noted for producing the phenomena of tarantulism upon persons bitten, he caused in succession a land turtle to be bitten in the lower eyelid, an aquatic salamander upon the back, a pigeon upon the breast, two verdels in the breast; then he inoculated the venom of the tarantula upon a third, a fourth he caused to eat one of the secretory glands, and, finally, he caused a rabbit to be bitten on the upper lip. Wishing to continue his experiments higher in the animal scale, Professor Francesco Gassi volunteered to allow his left hand to be bitten.

"These experiments, continued between June 15th and July 15th, established the fact that the bites of the famous tarantula exhibited no difference on these occasions from the bites of other spiders, except with reference to the pain and swelling, which were much greater from the bite of the tarantula than from the bite of other spiders.

"Professor Panceri, in analyzing the account of the Roman physician, reduces the assertions of Baglioi concerning *tarantism* to a medical error, to popular credulity, and to some ill observed cases of hysteria."—*Santé Publique.*

THE ABUSE OF THE BLISTER.—Under this head M. Foussagrives has recently published in his *Revue Thérapeutique*, the following article, to which we give our entire approbation:

One more victim to the abuse of the blister! The *Imparziale* of Florence, in its issue of the 19th of November, gives the case of a child, eighteen months old, over whose chest were applied, in the course of a severe attack of bronchitis, two small blisters. Placed too near each other, they united and ulcerated; their surface became covered with false membranes, adherent like those of diphtheria; the ulceration gained in surface and in depth, in spite of all means used to arrest it, and the child sank in a state of complete exhaustion. It is much to be regretted that analogous facts buried in the periodicals, and the still more numerous ones stored in the memories of practitioners, cannot be collated: this register of the dead, better stocked than one would believe at first sight, would suggest a certain amount of discretion in the application of this means of treatment to the diseases of children. There are countries where medicine, still inspired by the traditions of a gross humoralism, uses and abuses blisters, in the case of children; there is not a rash, not a cold, not an illness, not even a slight indisposition, in which cantharide is not resorted to, and from its employment serious inconveniences, if not fatal catastrophes, too often result. I lay down willingly as a rule, the absolute interdiction of open blisters in the case of children. The blister on the arm, a tribute paid to traditional routine, is, after the expiration of a few days, of very doubtful utility. It emaciates the limb as much by local drainage as by the compression of the bandages. I once saw a blister, applied to a lymphatic child, induce an eczema, which took on the chronic form, attacked the whole arm, and required two years of assiduous care in order to be eased; and this case is far from being isolated. Blisters applied over the chest have a peculiar tendency to degenerate, when kept in suppuration. Cases of obstinate ulcerations and erysipelas, coming on unexpectedly in these conditions, are extremely numerous, principally in hospitals. Flying blisters dressed with cotton wadding, and carefully avoiding injury to the epidermis, are, on the contrary, inoffensive. Singular inconsistency!

The greatest importance is attached, and with reason, in the practice of surgery to the necessity for not leaving the wound open; and yet physicians create every day, by blistering, and apparently without necessity, large denuded surfaces which offer fearful facilities for the endermic absorption of miasms. How many diseases undoubtedly enter by this door! Especially must it be kept carefully closed, when there is a constitutional tendency to phlebitis, erysipelas, or diphtheria. As under such circumstances we abstain from the bistoury, we must likewise abstain from cantharides.

"*Usus vesicantium salubris et noxius in morborum medela*," writes at the head of his book Balth. Tralles, in 1785; *sometimes* salutary, *often* hurtful, we could now say.

Let us look at the matter more closely. A blister is sometimes a superfluity—it often becomes a danger. I remember having seen gangrene attack the surface of a blister, applied with little reason to a man afflicted with an insignificant disease, whose bed was adjacent to that of a patient suffering from typhoid fever of the adynamic form. I remember also, and not without sadness, a case of death by erysipelas in a vigorous man, in all the strength of youth and health, who, coming under my care at the Cherbourg hospital to be treated for a slight bronchitis, brought there a *blister* which they had very uselessly inflicted upon him. The air of the hospital was bad, erysipelas prevailing. The surface of the blister ulcerated, an erysipelas of a bad form crept over the chest, delirium and nervous complications came on unexpectedly, and the unfortunate man sank, simply from the effects of the blister. (Le Rôle des Mères dans les Maladies des Enfants. Paris. 1868.)

I can best sum up my opinions on this subject, by offering the following propositions:

1st, The suppurating blister, applied to the arm in children, has been shown to produce more inconveniences than probable advantages. 2d, We should abstain altogether from blisters maintained in suppuration, in the practice of hospitals devoted to children, especially when the wards are crowded, and during the prevalence of erysipelas, purulent injections, typhoid fevers, etc. 3d, Flying blisters, so carefully applied as to avoid injury to the epidermis, and dressed like slight blisters with cotton wadding, are, however, expedient; their utility is fully demonstrated, and when properly managed, they offer no opportunity for the dangerous complications that I have indicated.

Asclepias the Bithynian left us a useful legacy; let us not abuse it.—*Gazette Hebdomadaire.*

On the Presence of Sulphocyanides in the Blood and Urine.—Dr. Arthur Leared, M.R.I.A., has recently investigated the distribution and physiological importance of the *sulphocyanides*, both in the human and lower vertebrate bodies. Some of his conclusions are as follows:—A sulphocyanide is found in the saliva of the great majority of persons, if not in that of every individual. Forty-five out of fifty specimens showed its presence with more or less distinctness. The healthy have more of the salt in this secretion than the feeble. Sulphocyanic acid passes into the urine, where it may be detected, and exists in the serum of the blood not only of man, but of the lower animals of each class of the vertebrate branch. It was sought in cow's milk, and in human sweat and pus, with negative results. The albumen of a hen's egg was found to contain $\frac{1}{10}$ of a grain of the acid. The salts of sulphocyanic acid possess considerable antiseptic power; but it is not known whether this property is utilized in the alimentary canal. The author concludes that the sulphocyanides are ingredients of the blood, and pass thence into the saliva and urine. He further propounds the theory that the red color of the blood is due to the reaction of the iron of the corpuscles with the salts in question held in solution in the serum. This he bases upon the fact that the persalts of iron strike with the sulphocyanides a red which very closely resembles that of the blood. These experiments are all in the right direction; we need more just such to clear up the thousand dark points of our science, Dr. Leared has our hearty thanks for the interesting and instructive manner in which they are presented.

Detection of Albumen.—Dr. Méhu uses the following mixture for the detection of albumen: Crystallized carbolic acid, one part by weight; commercial acetic acid, one part; alcohol, 90 per cent., two parts; mix and keep in a bottle. This fluid is intended to detect albumen in urine; to 100 grammes of urine are added 2 c.c. of commercial nitric acid; and next, after thoroughly mixing, 10 c.c. of the carbolic acid solution. This reaction is said to be very superior to the use of nitric acid alone.—*Chemical News.*

Exposed Pulps.—C. E. Francis, D.D.S., N. Y. (*The Dental Cosmos*), believes that his successes in the treatment of healthy pulps should encourage dentists to attempt the preservation of every healthy pulp. The course of treatment he has adopted in such cases is very simple, and has been frequently recommended by others as well as himself. It is this: First, keep at bay the fluids of the mouth, and dry the cavity carefully with a bit of the softest prepared punk. Bathe it with pure creasote, until all pain subsides. Cut a small circular piece from a sheet of smooth note-paper and place it directly over the wounded pulp, patting the edges down neatly and cautiously; then fill the entire cavity with a thin paste of oxychloride of zinc. If nicely done, the tooth is not likely to ache, the creasote coagulating the exudation from the pulp, and allaying irritation. If there is no *irritation*, there can be no *inflammation*, and the chances of success are more favorable. This should be guarded against, and for this reason he uses the paper cap, which not only prevents the chloride of zinc from touching the pulp, but is one of the best non-conducting agents of thermal changes that could be introduced in the same space. The tooth thus filled should remain in this condition a week or month, that the zinc may become quite hard; then remove the greater portion of it, and refill with gold. A sufficient thickness should remain to protect the pulp from pressure during the process of consolidating the gold.

Management of Penetrating Wounds of the Chest.—Prof. Lister (*Braithwaite*) advises that in a penetrating wound of the chest, the lung being injured, and the hæmorrhage copious, the wound should be plugged with lint soaked in "carbolic oil," a portion of the lint being passed into the cavity, in order to kill the organic germs that may have gained access to it, and thus prevent putrefaction of the blood in the pleural cavity. The lint should be removed the following day, under protection of a large piece of lint soaked in the carbolic oil, and then the "carbolic paste" applied to the wound until it is healed.

Elongation of the Cervix Uteri in Parturition.—Dr. Duncan, of Edinburgh (*Med. and Surg. Reporter*), has established the fact, that the cervix uteri undergoes a considerable degree of elongation from parturition.

The Discovery of Metallic Bodies in the Tissues.—M. Favro (*Gazette Hebdomadaire*) has invented an instrument for the discovery of metallic bodies in the tissues by means of electricity.

Cure of Pyohæmia by Quinine.—Dr. Ripoll, of Paris, reports a severe case of well-marked pyohæmia, due to purulent infection, cured by quinine, in doses of fifty centigrammes a day.

Extirpation of the Uterus.—M. Pean, of Paris, recently removed the entire uterus, to which an enormous multilocular cyst was firmly adherent. The woman recovered.

Nitrous Oxide.—The editor of the *Med. Press and Circular* is of opinion that the best that can be said for nitrous oxide is that as yet it has not been publicly charged with killing any one.

Chloroform in Pneumonia.—Dr. Balfour, of Edinburgh, reports several cases of pneumonia successfully treated by the internal administration of chloroform.

Transfusion of Blood.—Dr. Albanese reports that he has injected warm defibrinated human blood in seven cases, the patients being *in extremis*. Four patients recovered.—*Centralblatt.*

Antidote for Haschisch.—Prof. Polli, of Milan, says that lemon juice and the vegetable acids counteract the effects of haschish, while tea and coffee increase its action.

Sawdust Pills.—Sawdust pills would effectually cure many of the diseases with which mankind is afflicted, if every individual would make his own sawdust.—*Centralblatt.*

Treatment of Alopecia.—M. Hardy recommends the following pomatum for cases of loss of hair not dependent on syphilis or any parasitic affection:—

Suet,	60	grammes.
Castor Oil,	25	"
Gallic Acid	2	"

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RESPECTABILITY OF MEDICAL OPINION IN THE NAVY.

MUCH has been said about the case of Passed Assistant-Surgeon Charles L. Green. We believe there are still many, both in and out of the Navy, who seem not to comprehend that its issues touch interests which are common to the members of the medical profession. This belief must be our apology for referring to it again.

A summary of the case is that Lieutenant-Commander Selfridge, in command of the U. S. vessel Nipsic, ordered Passed Assistant-Surgeon Charles L. Green, the only medical officer attached to the ship, to remove from the sick-list the name of John Simmons, an ordinary seaman, who was under treatment for a cutlass wound of the scalp. Because he believed the order to be unlawful, Dr. Green refused to obey it. A court-martial virtually decided that the order was lawful, and of course found him guilty of disobedience, which is a very grave military offence.

The extent and severity of the injury, or its condition at the time the order was given, it is not important to know. The question at issue is, whether a military commander has a lawful right to require a medical officer under his command to reverse his opinion and alter his written report. If the question be decided in favor of the commander, it follows that the opinion of a medical man is entitled to no respect, and his professional rights in this sense are indefensible. Such a decision might be a precedent in civil life for overruling the opinion of medical men in charge of our prison and other hospitals, as to the capability of persons to labor, to serve as jurors, or appear before courts as witnesses. The medical certificate in any case would cease to be respectable testimony. In this connection, then, the case of Dr. Green is extensively interesting, not only to all practitioners, but also to those who may be in need of this kind professional protection.

In the naval service it is customary for persons who believe themselves to be in need of medical advice to complain to the surgeon of the vessel. If in his opinion the nature of the cases is such that the patients should be excused from routine work, the surgeon, under the common oath of office to perform all duties faithfully, certifies to the fact in two official reports. These reports are in fact the expression of his professional opinion. One report is addressed to the commander. In it are stated the names of the patients, their grades or rates, the names of the diseases or injuries from which they are suffering, their condition, etc. This is known as the "daily sick report," or the "sick report."

The other report is for the common information of the officers of the watch and the ship's company. It is merely a list of the names of those whom the surgeon has under his professional care, dated and signed. This summary report is technically called, from the place where it is usually kept, the "binnacle list," or the "sick-list," or "the list." Whenever the watch is mustered, each man is required to answer when his name is called. If he does not answer, he is amenable to punishment, unless satisfactorily accounted for. If he is sick, a messmate usually answers to the call of his name, "sick," and then the binnacle list is referred to by the officer mustering the watch to verify the statement. Men who do not answer at muster are otherwise satisfactorily accounted for by some one answering, as the case may be, "on the look-out," "away in a boat," "on liberty," "excused," &c., &c.

It must be self-evident that both the "sick report" and the "binnacle list" are official expressions of the surgeon's professional opinion that those named are not qualified, in consequence of their physical condition, to perform their routine duties. Whether they are excused from work or not, is, of course, contingent upon the respect paid to the surgeon's opinion or certificate that their condition disqualifies them for duty. The surgeon is responsible for the opinions thus given. No one has either a moral or legal right to require him to certify or report contrary to his own convictions, or to compel him to reverse his statement by taking from or adding to the "sick-list" a name.

There is no apparent reason why the opinion of the surgeon, in the premises, should not have as much control over the captain as the opinion of the Attorney-General has over the Secretary of the Navy; both surgeon and attorney are experts in this sense; one construes the physical condition of men in relation to their working capacity; the other interprets the meaning of legislative expressions, the object being in both instances to serve as just and safe guides to official conduct. We do not believe that the interests of a sick man would be safer left to the discretion of a military commander than confided to an expert for determination, nor do we perceive how it is possible that the respectability of a commander can be diminished by excluding him from participation in the responsibility which pertains to the surgeon, or how detriment can accrue to military discipline—meaning the practical observance of the requirements of military laws, rules, and

regulations—by according entire respect to the surgeon's professional opinion. It is assumed that he is as honest, honorable, and patriotic as the commander. He can have no interest in declaring falsely that a man is sick, or in improperly deferring the discharge of patients from his list or report.

But we contend that the commander's order to the surgeon to remove a name from the list of sick is in conflict with the spirit, if not the letter, of statute law. The "Act for the better Government of the Navy of the United States," approved July 16, 1862, provides, section 16, among other things, that each commanding officer "shall cause a convenient place to be set apart for sick or disabled men, to which he shall have them removed with their hammocks and bedding, *when the surgeon shall so advise*, and shall direct that some of the crew attend them and keep the place clean. He shall frequently consult with the surgeon in regard to the sanitary condition of his crew, and shall use all proper means to preserve their health."*

This statute clearly implies that it is a function of the surgeon to determine who is sick or disabled—who is to be removed from the scene of his usual work to the convenient place set apart for sick or disabled men. The commander is left no discretion in the matter The law—made seventy years ago,—says that, "when the surgeon shall so advise," the commander shall have sick or disabled men removed to a place set apart for their accommodation; and it follows, of course, that while they are, in the opinion of the surgeon, sick or disabled, they are to be excused from their ordinary duties. But no words of the law imply or suggest that, when the commander shall so advise or order, the surgeon shall discharge any man from his list of sick, and so expose him to the penalties for neglect of duty, although he may be physically incapable of performing it.

To us the intention of this law is plainly to protect the surgeon in the performance of his professional functions, as well as sick men, from improper or arbitrary interference. It renders Lieutenant-Commander Selfridge's order to Dr. Green to remove the name of John Simmons from the sick-list unlawful. No honest logic can construct disobedience out of a refusal to comply with an unlawful order.

The common law also sustains this conclusion. Both in civil and military communities men are released from their ordinary obligations to work while they are sick or disabled. A physician's certificate that a man is sick excuses him from attendance in any civil court, either as witness or juror. It is also regarded to be sufficient reason to excuse men from being present in manufactory or workshop. Humanity to the sick is universal. The galley-slave and inmates of penitentiaries, from whom the laws exact unremitting toil in compensation for their crimes, are released from labor, while sick, on a physician's testimony. Physical suffering begets commiseration and sympathy even for criminals. Men refrain from assailing an enemy while he is sick or disabled. In the common opinion of mankind no tyranny or cruelty is greater than that of requiring sick men to labor. Neglect to succor them according to their need, with all means at command, is equally repugnant to humanity. Who has forgotten his opinion of the sufferings of our sick and wounded soldiers in rebel prisons at Andersonville and other points; or who fails to applaud the agency of the Christian and Sanitary Commissions in bringing relief to the sick and wounded everywhere!

A man declares himself to be sick. The surgeon examines his condition and testifies that the man's declaration is true. Then the man is excused from work by a decree of humanity, because he is sick—not because the surgeon orders it. He merely gives his testimony as an expert that the man is sick, and on this testimony the laws of humanity excuse him from his obligation to labor. Beyond his evidence in the case the surgeon has no agency whatever in releasing a man from duty.

In military communities the sick-list has an impersonal authority, derived exclusively from the sentiment of pity and forbearance towards sick or disabled fellow-beings, which has a foremost place in every worthy mind. Even when the declaration of the patient and the testimony of the medical witness are doubted, the general practice is to refrain from compelling him to work. Were it not for this universal sentiment of humanity towards those who are sick, malingering would be profitless and would cease to exist.

In this common law may be found the real reasons why Lieutenant-Commander Selfridge ordered Dr. Green to remove the name of John Simmons from the sick-list, instead of directly ordering John Simmons to go to work, in spite of his name being on the sick-list. The common law, which he would not ignore, although he did forget the statute, stood between him and John Simmons, and he could pass over it only by treating his official inferior with contempt, in requiring him to reverse his opinion that John Simmons was not physically qualified to perform his duty. As soon as the man's name was erased from the binnacle list, the testimony of the surgeon would be expunged, though his condition would be unchanged.

We have no doubt that, both in view of the statute and common law, the order of Lieutenant-Commander Selfridge is unlawful, in spite of the finding of the court-martial, which ought to be reversed, and possibly may be by the successor of the present Secretary of the Navy. Mr. Selfridge was guilty of unofficer-like conduct by being ignorant of the law in the premises. Professional feeling and respectability have been outraged in this remarkable case, and hence it is that the sympathy of medical men with Dr. Green is universal.

* Copied from the Act of the same title, approved April 23, 1800. The same provision is made in section 15 of the "Act for the Government of the Navy," approved March 2, 1799.

This case is in curious contrast with that of Lieutenant-Commander Seely of the Pawnee, who has been convicted of inflicting cruel and illegal punishment. In the case of Dr. Green the Navy Department promptly issued order No. 140, reprimanding him, and circulated the unjust sentence throughout the Navy, but as yet no such means have been taken to stamp with the Navy Department's disapprobation Lieutenant-Commander Seely's cruelty. Indeed, there are officers of the line, if we may credit the newspapers, who argue that Mr. Seely should not have been tried at all, because he was the executive officer of the vessel, and as such he was merely the agent of the captain, who should have been held responsible, on the principle, *qui facit per alium facit per se.* And yet these same gentlemen contend that, for the practical observance of the requirements of military laws, rules and regulations, or, as they say, for the sake of discipline and "the good of the service," it is essential that the executive officer—the agent of the captain—shall have command and precedence of all staff officers of every age, name, and grade everywhere, ashore and afloat. As the captain of the vessel is responsible for all the orders issued by his agent or actuary, there is no apparent reason why this agent should possess equal authority, command, rank, and precedence, unless it is considered expedient that the captain should be kept on board for ornament and exhibition on special occasions, while the executive officer, acting the part of captain's second self or double, manages affairs according to his own discretion.

Reviews and Notices of Books.

DEPARTMENT OF AGRICULTURE.—Report on the Diseases of Cattle in the United States, made to the Commissioner of Agriculture, with Accompanying Documents. Washington, 1869. 8vo. pp. 190.

THE most important articles in this recently issued volume are those of Prof. John Gamgee, M.D., on the lung plague, the ill effects of smutty corn on cattle, aad on the splenic or periodic fever of cattle. To these are appended a letter of Dr. Ravenel of South Carolina on the fungi of Texas, with copper-plate illustrations of microscopic appearances, and a very valuable report of results of examinations of fluids of diseased cattle, with reference to the presence of cryptogamic growth, by Drs. Billings and Curtis, U.S.A.

In the appendices are found tabular statements of mortality in cattle, by Mr. John Read; and tables of Dutch experiments on inoculation, etc. The researches of Prof. Gamgee have been prosecuted in persuance of an appointment made by the Agricultural Bureau at Washington, in the autumn of 1868, whose preliminary report was published in the monthly reports of that year; the present volume contains his final report. Prof. Gamgee gives a very full and elaborate history of the lung plague as it has prevailed in Europe and the United States. The disease first appeared in this country in the year 1843, in Brooklyn, New York, in a cow imported from Germany, from which the disease was communicated to others, and has prevailed to a greater or less extent in Kings County, Long Island, ever since. In 1847 the disease was imported into New Jersey in some English stock, and in 1859 into Massachusetts from Holland.

This State appointed a board of commissioners for the purpose of exterminating the disease, and $10,000 were appropriated for this purpose in the spring of 1860. $20,000 additional were subscribed by private individuals. All infected animals were promptly slaughtered. The disease reappeared in 1861, when a new board of commissioners was appointed; the final report on pleuro-pleumonia of cattle was made to the State Legislature in December, 1867, in which the people of the commonwealth were congratulated on the effectual eradication of this destructive contagious disease.

Prof. Gamgee, however, maintains that this disease has continued ever since its first introduction in 1843, to attack some of the numerous dairies on Long Island; for which inoculation has been very generally and successfully practised.

The disease is stated to have prevailed for some years in Pennsylvania and Delaware, and has travelled as far west as Kentucky and Ohio. For three years past Prof. G. states that contagious pleuro-pneumonia has existed in the city of Washington and the whole District of Columbia, with adjoining parts of Maryland and Virginia. Of all cattle diseases this would seem in the long run to be the most destructive, inasmuch as it is the most insidious, and the least likely to rouse the people to united action for its effectual suppression.

Our limits will not permit us to give the symptoms, treatment, or pathology of the disease, nor the author's views as to its causes, the results of inoculation, etc. These are fully considered, and the conclusions arrived at are summarized at length.

We pass over also the remarks on splenic or periodic fever of cattle, sometimes called the Texan fever of cattle, which Prof. Gamgee considers an enzootic due to local influences capable of only a limited spread, and analogous or identical with the black water of various parts of Europe. It evidently originated among Southern cattle from the Gulf coast, owing to the nature of the soil and vegetation on which they are fed, and the water which they drink, and propagated by contagion as they are brought or driven north.

The researches of Dr. Ravenel in Texas are entirely of a negative character, so far as they tend to throw any light on the existence of the cryptogamic forms of vegetation (*micrococci* and *cryptococci*, so called), primordial cells or spores, which Prof. Hallier states developed themselves into a distinct fungus plant under his manipulation, which fungus he names *Coniothecium Stilesianum*, after Dr. Styles of the Metropolitan Board of Health, who is said to have first discovered them. No such parasitical fungus was found by Dr. Ravenel growing on plants in Texas forming the food of the wild bullocks. Nor do the carefully conducted and ingenious experiments of Drs. Billings and Curtis of the United States army, in their investigation of the possible cryptogamic origin of cattle diseases, lend any support whatever to this theory. In regard to the contagious *pleuro-pneumonia* these observers state, as the result of all their observations and experiments, that there is no peculiar *fungus-germ* present in the blood or secretions, and that the theory of its cryptogamic origin is untenable.

With respect to animals affected with the *Texas* or *splenic fever*, Prof. Gamgee informs us that he examined the blood and secretions of two steers in Texas affected with the disease, with a power of two hundred and fifty diameters, and discovered nothing unusual.

It is to be borne in mind that, as Drs. Billings and

Curtis remark in their report, the fungi which are supposed to cause disease in animals are, when in their perfect state, or at least in such a state that they can be identified, composed of *mycelium* and *spores*. But according to the advocates of the cryptogamic origin of disease, neither the mycelium nor the spores of the fungus that produces the malady are necessarily or even usually to be found in the fluids or tissues of the animal affected, their theory being that the disease is produced by the presence in the economy of minute particles of protoplasm (*micrococcus* of Hallier), resulting from development and breaking up of the spores or mycelium of a fungus; from which granules, they assert, can be developed perfect forms of fungi, or recognizable genera and species by proper "cultivation" outside of the body of the animal fluids containing them.—Thus when the blood of a pleuro-pneumonic or Texan-fever cow fresh from the vein, is examined with a magnifying power of 1,200 diameters linear, nothing distinctive or unusual may appear; the red and white blood corpuscles may be perfectly normal, and nothing like spores or mycelium will be seen. But there will probably be, either single or in masses, some minute granules or molecules appearing as glistening points scattered over the field. If such are not present at first, by keeping the blood exposed to the air for a few hours they may be found in abundance.

Now it is these little molecules which are expected to cause disease by their presence in the animal economy, and which are claimed to be vegetable in their nature, as being developed from, and capable of reproducing certain common fungi, popularly known as *rusts*, *smuts*, or *moulds*.

To prove the truth of the latter statement, experiments have been made by various investigators on the principle of placing the fluid containing the micrococcus in the proper conditions as regards warmth and moisture for the development of fungi; supplying the germs with suitable pabulum for their nourishment, and adopting such precautions as are possible against the fortuitous introduction of spores of fungi from the atmosphere. If under such circumstances a mould or mildew appears upon the suspected matter, the argument is, that such mould necessarily sprang from the micrococcus granules as its parent germs, and therefore represents the perfect fungus of which such micrococcus is a special form. In experiments performed previous to those of Drs. Curtis and Billings, no measures seem to have been taken to exclude such extraneous bodies floating in the atmosphere. These experimenters, however, describe the process and the apparatus used by them for this purpose, which seems to have been perfectly successful. For a description of this, with the illustrative plates, we refer to the Report under notice. The results we have already stated. They remark that "in cases of splenic fever of cattle ("*Texan Disease*"), our experiments fail to establish the presence of any peculiar or special cryptogamic germs in the blood; and instead of supporting the notion that the micrococcus granules which are present in any way cause the disease, tend rather to show that their occurrence should be considered as an effect of the malady, whether constant and inherent, or altogether fortuitous. They also observe that these fungi, developed in the fluids of a diseased animal, may become the carriers of contagion; but that this can only be determined by a series of inoculations upon healthy cattle. The statement of Dr. Styles, in the last Report of the "Metropolitan Board of Health of New York," that "the fungus origin of zymotic diseases is now conceded by the highest authorities in mycological research," is by no means correct; inasmuch as the highest authorities in England, America, and Germany, as Berkeley, Wood, Curtis, and Debarry, admit nothing of the kind.

TRANSACTIONS OF THE MEDICAL SOCIETY OF NEW JERSEY, 1869. Paper, pp. 197.

THE Medical Society of New Jersey has long been known as one of the ablest in the United States; its prominent members seem to be up to the times, and desire to advance in their profession, if we can judge from the minutes of the one hundred and third annual meeting of the Society, which was held at Jersey City on Tuesday, May 25th, 1869.

The address of the President, Dr. T. J. Corson, on "Physician and Patient; their Relative Duties, Rights, and Privileges," is so clear, that the youngest aspirant for medical honors can learn much with reference to the management of grave responsibilities which will surely devolve upon him. His advice to those who are constantly obtruding their political and religious views upon others is sound, and we give it in his own words: "A blatant politician, or violent partisan, who is constantly obtruding his sentiments, and loudly proclaiming his opinions when he knows they are repugnant to others, will never make a successful physician in a business point of view, for those from whom he differs will very soon extend their patronage to other quarters."

DR. J. E. CULVER'S paper on the "Use of the Hygrometer" as an indispensable aid to epidemiographical knowledge is well worth perusing. The "Reports of District Societies" are complete, and give lucid histories of the prevailing diseases in the counties of New Jersey, with important and interesting cases in each section, written up by earnest and painstaking medical men.

The next annual meeting of this time-honored Medical Society will be held at Trenton on the fourth Tuesday of May, 1870. Its officers are as follows: *President*, Wm. Pierson, M.D., of Orange. *Vice-Presidents*, Thomas F. Cullen, M.D., Camden; Charles Hasbrouck, M.D., Hackensack; and Franklin Gaunte, M.D., Burlington. *Corresponding Secretary*, Chas. F. J. Lehlbach, M.D., Newark. *Recording Secretary*, Wm. Pierson, jr., M.D., Orange; *Treasurer*, H. R. Baldwin, M.D., New Brunswick. *Standing Committee*, Drs. Stephen Wickes, John Woolverton, and J. E. Culver.

The number of county societies included in the parent society is *fourteen*, and the membership numbers three hundred and twenty-five practitioners.

TRANSACTIONS OF THE PHILADELPHIA OBSTETRICAL SOCIETY

THIS pamphlet contains a valuable paper on "Hereditary Convulsions of Infancy and Childhood," by Robert P. Harris, M.D.; a long article on "Concealed Accidental Hæmorrhage of the Gravid Uterus," by Wm. Goodell, M.D.; and reports of the meetings of the Society from December 3, 1869, all reprinted from the American Journal of Obstetrics and Diseases of Women. The cases related by Dr. Goodell are very interesting, and we have selected some of them for our department of "Progress of Medical Science," with other extracts from the "Transactions."

PREGNANCY AFTER OVARIOTOMY.—Dr. T. Spencer Wells writes to the *London Lancet* as follows: "Of more than twenty patients who had recovered after ovariotomy in my practice, and had subsequently become pregnant, I have not heard of one case in which there was any unusual suffering or difficulty during pregnancy or labor."

Reports of Societies.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

STATED REUNION, NOVEMBER 5, 1869.

DR. ISAAC E. TAYLOR, PRESIDENT, in the Chair.

SUPER-LARYNGEAL BURSAL TUMORS.

DR. F. H. HAMILTON read a paper upon *Super-laryngeal Encysted Tumors, or Encysted Bursal Tumors in front of the Larynx.*

He had found most frequently in women, a small encysted tumor, which he had not seen described, forming upon the front of the larynx, always exactly or very nearly in the median line, and ranging in vertical position from a point just above the thyroid cartilage to a point in front of the cricoid; occurring most commonly, however, in front of the crico-thyroid space. It was usually not larger than a pullet's egg, never larger than a small orange, globular, smooth, elastic, with thin walls closely adherent to the larynx, containing a thin yellowish serum. Sometimes it disappeared, shortly to return; in one case, however, with no return at the end of two years. In one case the contents were discharged into the larynx.

Dr. Hamilton's treatment had consisted of excision, which was very difficult from the thinness of the walls and their close adhesion to the larynx; and of incision, coupled when necessary with iodine injections; and these means had always been effectual.

These tumors were certainly not connected with the thyroid body, but were in all probability bursal, originating either in the thyro-hyoid bursa (described by Gray as lying between the laminæ of the middle thyro-hyoid ligament), or in an adventitious superficial bursa, occasionally found in front of the larynx, and probably caused by friction of the integument over the cartilage. The Doctor gave in detail his reasons for this conclusion, as also reports of ten cases.

DR. ELSBERG—Mr. President: Like everything else that has come from the pen of Prof. Hamilton, the paper to which we have just listened bears evidence of able and honest observation, and faithful and careful recording, with but the single purpose, to get at the truth; and I am charmed with its straightforward style. In believing that the subject has not hitherto been described, Prof. Hamilton is mistaken; but in the conclusions he has independently reached as to the pathology and proper treatment of these tumors, he is borne out by the experience of others. I have seen three cases myself which have never been published, of which I will speak presently, for I desire to take up some of the points of the paper in regular order.

First, as to the anatomy: Dr. Hamilton states that the thyro-hyoid bursa is not mentioned by Monro in his "Description of all the bursæ mucosæ of the human body." This is quite an interesting little point, because I remember that Nelaton, in his Elements of Surgical Pathology, and Hyrtl, in his Hand-book of Topographical Anatomy, ascribed its first description to Malgaigne; and although I have never had access to the book myself, I am quite positive that I have seen it stated that Monro has described and even figured it.* At all events, Verneuil, in the first volume of the *Archives Générales de Médécine*, describes not only this, but also other bursæ occurring in this region. The bursa evidently involved in most of Prof. Hamilton's cases, Verneuil has called "bursa mucosa antethyroidea subcutanea," and certainly the name of antethyroid, or, as Prof. Hamilton himself has suggested, antelaryngeal bursal tumors, would be more correct than superlaryngeal.* The fact is,—and this I have had occasion to verify already some years ago when I paid particular attention to this point in the dissecting room,—bursæ, or at all events cavities or spaces entirely like bursæ, either with or without distinctly developed membranous walls, epithelium, and fluid, are occasionally found, sometimes very superficially, sometimes more deeply, anywhere in front of the larynx, usually in the median line, but sometimes double, that is, on each side of the median line; and again, though very rarely, only on one side, a few lines removed from the median line. These bursæ, though they occur very inconstantly and irregularly, may be found at any point from the cricoid cartilage to the hyoid bone, and even behind and above the hyoid bone. Sometimes the cavity is divided into compartments by membranous divisions. When expanded, the space occupied may vary from that filled by a large pea to that by a hazelnut, or may be even still larger.

The view expressed by Prof. Hamilton as to the pathology of these tumors is undoubtedly correct. The bursa enlarges, its contents having become increased and changed in fluidity and other characters, with or without admixture of blood. Whether the bursa was present at birth, or is not formed, as is doubtless sometimes the case, until later in life, it is probably almost always the movement of the skin or of the larynx and other influences inciting irritative or inflammatory processes by which these tumors are developed at the site of the bursal cyst. The name of hygroma is a very proper one to apply to these tumors, not limiting it to dropsy of the bursa, as Dunglison defines it. The fluid may vary from thin watery serum to thick honey- or syrup-like consistence, in color from light and clear to reddish or yellowish brown; it may be more or less viscid, sticky, synovial, or mucoid. It usually contains cholesterine crystals, a large quantity of albumen, soluble salts of the blood, and of course a large quantity of water. I have made a chemical analysis of the contents of one of these tumors, which, however, has never been published. In point of frequency, there is no doubt that altogether the bursa occurs more often in front of the thyro-hyoid membrane than in any other position in front of the larynx; the thyro-hyoid tumor should consequently be met with more frequently than the antethyroid or crico-thyroid, but this has not happened in Prof. Hamilton's series of cases, nor in mine. This is of course only accidental.

The point of sex I would almost have forgotten to speak of. I certainly found, anatomically, the bursæ more frequently absent in the female than in the male. Dr. Hamilton reports that of his nine or ten patients, seven were females. The only three cases I have seen occurred all in males, and I have the impression in my mind that in the cases I have seen reported by far the

* P.S. Note No. 1, by Dr. E.—Prof. Hamilton replied that he had personally examined a copy of Monro's book without finding it. This discrepancy I can only account for by there being an early edition in which the bursa is not yet described, for Huschka (Anatomie des menschlichen Halses, p. 26) positively refers to its description in an edition published at Edinburgh in 1788; and Gurlt (Cystengeschwülste des Halses, p. 40), refers to—A. Monro, Icones et descript. bursarum mucos. corp. hum. In Latin and German, by J. C. Rosenmüller. Leipzig, 1799; p. 32 and figure Plate I., No. 4.

* P.S. Note No. 2, by Dr. E.—It seems Béclard (Anatomie générale, 1823, p. 208) was the first to mention the existence of a bursa in front of the thyroid cartilage, and Huberson (Des Bourses celluleuses sous-cutanées et leurs maladies, Thèse inaugurale, 1837, p. 11), the first to describe it more fully, while Verneuil has the merit of having made the most careful investigations regarding its occurrence (Recherches Anatomiques pour servir à l'histoire des Kystes de la Partie supérieure et médiane du Cou, Archives Générales de Médécine, Paris, 1853, vol. I., p. 185 and 450).

great majority occurred in males. To be sure, even Prof Hamilton's number is too small to generalize from, and the seeming preponderance may well be due to accident and coincidence. There is one consideration not to be lost sight of in addition; and that is, that as these tumors seldom cause much annoyance, except from the looks, female sufferers are more likely, perhaps, to apply for relief than males, who hide the exterior of the larynx so frequently with beard, cravat, &c.

As to age, two of my patients were adults and the third a boy. Perhaps it would be well to give here a brief account of my cases. The first I saw as long ago as in 1857, I think. It occurred in a patient of Prof. Mütter. The tumor was just in front of the pomum Adami, almost of the size of a small orange, soft, compressible, and elastic. It was incised, of course evacuated, and then some dilute tincture of iodine was injected. The contents of the tumor had been saved, and it was of this that I made, as I said a moment ago, a chemical analysis, the only one that has been made of the contents of an antethyroid hygroma, so far as I am aware.* The second case was that of a boy twelve or thirteen years old, who came to my Throat Clinique of the University Medical College in 1863. The tumor, the size of a walnut, adhered to the thyro-hyoid membrane. The boy said it had been previously quite painful, but was not at the time. I punctured and excised the front portion of the cyst; some inflammation and suppuration followed, and the patient was perfectly well in the course of four or five weeks. In the third case there was some annoyance in swallowing, in speaking, and even in breathing. The patient had gone through the war, and a very small swelling which he had had from childhood, but which had never grown perceptibly, gradually developed while he was soldiering to the size of a large hen's egg. It covered the whole front of the larynx from the cricoid cartilage to the hyoid bone. I simply incised it, evacuated the contents, which were rather thick, and injected some of the following solution: ℞. Iodine gr. x., Potassii Iodid. ʒj., Aquæ Destill. ℥j. All annoyance was gone, the wound healed, and the patient got well.

The treatment recommended by Prof. Hamilton is the same as that recommended by those who have written on the subject. Extirpation, i. e. complete excision, is frequently impossible, always difficult, and sometimes extremely dangerous. Incision with partial excision, or even only puncture, should therefore be preferably practised, and inflammation and cicatrization allowed to take place, either without further artificial aid, or when necessary by injection of diluted tincture or a solution of iodine.

As to the literature of the subject, in addition to the article of Verneuil, the main if not the only monograph is Gurt's on Cystic Tumors of the Throat (Ueber die Cystengeschwülste des Halses. Eine chirurgische Monographie von Dr. E. Gurlt. Berlin, 1855). I remember to have seen, from time to time, cases of infrahyoid and antethyroid hygroma reported in the journals, especially the French, but cannot recall at this moment the name of any particular one, unless it be the Paris *Gazette des Hôpitaux*, which I am quite sure has contained a number within the last twenty years.

Dr. Weber was confident that the late Professor Schule, of Vienna, who had written so clearly upon ranula, had mentioned a case of this antelaryngeal tumor. He had himself met with a single case.

Dr. Hamilton said that, with regard to the point of sex, we should expect these tumors to be more frequent in males, from the greater prominence of the thyroid cartilage, though, on the other hand, this was sharper in the female. But were we to assign much weight to either of these conditions, we should be met by the fact that the tumors appear so early in life. He had seen one in a child of four years, and another said to have existed in infancy.

Dr. J. H. Pooley had observed two cases. The first was in an elderly woman, the tumor being seated just above the cricoid cartilage, smooth, and about the size of a pullet's egg, but perfectly round. The second was in a man who presented himself at the Dispensary in Yonkers. The tumor was over the thyro-hyoid space. On incision a clear fluid exuded.

The speaker asked if the fistulæ sometimes found in connection with these tumors had any relation with the congenital fistula of the neck. He had reported a case where two such congenital fistulæ existed in front of the thyroid cartilage, in the median line, about one-fourth of an inch apart. [Medical Record, July 1, 1869, Vol. iv., p. 195.]

Dr. Peaslee contrasted this median fistula of the neck with another form, due to arrest of development, and corresponding to the gills of fishes. This was probably never in the median line.

He spoke also of a class of tumors, which he had not seen mentioned by any writer, similar in appearance and contents to those described by Dr. Hamilton, but located at the side of the neck, on a level with the larynx and two inches or more behind it, immediately over the jugular vein—(too far back for the pulley of the digastric, which Dr. Hamilton remarked was the occasional site of such a tumor). He had seen but three cases, two of which were in females, the third in a male. Upon the last and one of the former he had operated, and found the tumors very deep-seated. In the other woman, about thirty years old, the tumor first appeared during pregnancy, diminished after parturition, increased with the next pregnancy, and so on to the third, after which it nearly disappeared.

The President thought the Doctor would find a valuable article upon this subject by O'Beirne, in the *Dublin Journal* as far back as 1843, or thereabouts.

Dr. Post had removed a pretty large cyst seated over the sterno-mastoid muscle. He had treated with iodine injections a hygroma situated beneath the sterno-mastoid, and coming to the surface on either side of it. Of the tumors in question he had seen three, all of them large bursal, with processes extending from them. Two of them occurred in women of forty and twenty-five years respectively, and the third in the father of the younger lady. They were all dissected, cut, and left to suppurate.

Dr. Post reported a case of *cheiloplasty*, and was followed by Drs. Hamilton and Buck in remarks upon the subject.

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* P. S. Note No. 3, by Dr. E.—The fluid presented a dark yellowish-brown appearance, somewhat resembling that of the concentrated solution of sesquichloride of iron, but turbid and viscid. It yielded:

Water		80.95
Albumen, with traces of fibrine, coloring matter, &c.		14.37
Extractives	aqueous (chloride of sodium, phosphate of soda, &c.)	2.17
	alcoholic	1.53
Fatty matters.		traces

A Representative of the University of Cambridge.—Prof. Paget has been re elected to represent the University of Cambridge, for a period of five years, in the General Medical Council.

Prof. Von Bruns, of Tubingen, Receives a Valuable Prize.—This distinguished professor lately received a prize of 20,000 livres, offered by Dr. Riberi, of Turin, for the best work on Laryngoscopy.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, DEC. 22, 1869

DR. LEWIS A. SAYRE, PRESIDENT, in the Chair.

TAPE-WORM.

DR. FINNELL exhibited a tape-worm ten feet in length, passed by a woman forty-three years of age, who had, by the advice of friends, induced a formidable hypercatharsis by repeated doses of turpentine and castor oil. The head of the animal had not, however, been discharged.

He also exhibited the penis and bladder of a man who had died of uræmia, in consequence of a very close stricture of the membranous portion of the urethra, of fifteen years' standing. For a good part of this time he was unable to pass water except in drops, and a No. 3 bougie only could be introduced.

INTRA-ABDOMINAL TUMORS CAUSING DIFFICULT LABOR.

DR. FINNELL next exhibited an interesting specimen of intra-abdominal tumors in a fœtus of eight months' development, causing difficult labor. The mother had fallen in labor with this, her second child, about the eighth month, and was attended by a midwife. The breech presented, and when one of the feet came down the attendant attempted to push it back, but after repeated efforts failed, and sent for a physician. After a great deal of effort on the part of the latter, delivery was finally accomplished. On examining the child afterwards, the abdomen was found unusually prominent, and on being opened two large tumors —one on either side in the situation of the kidneys— were discovered. These so much resembled in appearance a pair of enlarged testicles found in the same situation in a fœtus presented at the meeting of June 12, 1867 (vide MEDICAL RECORD, vol. ii., p. 258), that he was inclined to think that it was a second case in which such a condition of things explained a case of difficult labor. At the time the first case of the kind was exhibited, no similar one could be found on record. Not wishing to disturb the relation of the parts until the specimen should be examined by the committee on microscopy, no more minute examination had been made than would give the foundation for a conjecture. The specimen was on motion referred accordingly.

THE ASSOCIATION OF TUBERCULOUS DISEASE WITH CARIES OF THE VERTEBRÆ.

DR. HUTCHISON presented the fragments of six cervical vertebræ removed from the body of a child five years old, whom he saw for the first time a year since, after it had been complaining of trouble about the neck for two years or more. The patient was a pretty well developed boy, but rather pale in appearance, and having the aspect of a scrofulous subject. On examining his neck a posterior projection in the neighborhood of the second and third cervical vertebræ, the processes of which turned to the right side, was found. His head was generally inclined forward upon his chest, and while at play he would support it with the left hand under the corresponding side of the jaw. Sometimes he would succeed in getting the head well back, in which position he would maintain it for several days at a time. He supposed, as did also Dr. H. S. Smith, of Brooklyn, who saw the case before, that there was antero-posterior curvature (Pott's disease). An apparatus was contrived to keep the part in good position, but the wearing of it had to be abandoned on account of the extreme irritability it occasioned. In the course of two or three months afterwards the patient was attacked with inflammation of the glands of the right side of the neck, near the upper portion of the mastoid muscle. An abscess formed, and scrofulous pus was discharged. A few weeks after these glands had suppurated a probe was introduced into the opening, and a very careful examination was made, but failed to make out any connection of the inflammation with disease of the bone. Six weeks subsequently the child was attacked with all the symptoms of tubercular meningitis, and soon after died. There was no paralysis, and the sphincters, up to a short time before death, were in a normal condition.

Only an opportunity to examine the cervical vertebræ was granted after death. The abscess was very carefully examined, and no connection whatever with diseased bone was established. The spinal cord was vascular, but not softened. The inter-vertebral cartilages were extensively diseased, and in some spots were entirely destroyed. The anterior arch of the first vertebra was detached, evidently the result of epiphyseal separation; its left inferior articular facet was also denuded and its hardened portion gone, so as to expose the cancellated structure. The left inferior articular faces of the second vertebræ, together with the transverse processes, were also gone. The bodies of the third and fourth vertebra, with the transverse processes, were in the same condition. What remained of the fourth vertebra was fused to the fifth, the body of which in its turn was denuded and roughened. The body of the sixth vertebra was also denuded.

The point of interest in the case was the absence of suppuration about these diseased vertebræ. He believed it to be very rare, that tubercular disease of the bones such as presented, should exist without having connection with an abscess in its vicinity.

DR. SAYRE remarked that he had never seen a case of chronic disease of the bones that he could not refer to some traumatic origin. A great deal of doubt existed in his mind as to the probability of there being any tuberculous degeneration in any of the bones.

DR. HUTCHISON had no doubt that tuberculous disease of the bone occurs much less frequently than was generally supposed, but he did not doubt of its occasional existence.

DR. LEWIS SMITH exhibited a specimen of the same disease occurring in a different locality. The specimens were removed from a child who died at the age of seven years. It had not been ascertained when the caries of the vertebræ occurred. The child first came under observation in October, with pneumonia of the lower lobe of the left lung. He gradually improved, and during the month of November was convalescent. About the 8th of December there was a return of the pulmonary symptoms. There was marked dyspnœa, acceleration of the pulse, with other symptoms of accession of inflammation. On physical examination pneumonia of the upper as well as the lower lobes of the left side was discovered. The pulse was 144, the respiration 56, and the temperature about 98 or 100. In the course of a few days afterwards the child died.

Permission was only granted to open the thoracic and abdominal viscera. On opening the chest cavity about three ounces of serum were found in the pericardial sac. The right lung was partially adherent to the ribs by old pleuritic bands. On examining the left lung its upper lobe was found completely hepatized, as was also the posterior half of the lower lobe. There were no tubercles in any part of the body. The bronchial glands were enlarged and inflamed, and a few of these were in a cheesy state of degeneration. The point of interest was the co-existence of cheesy degeneration of the glands with disease of the vertebræ. There were attached to the vertebræ three

nodules, which proved to be nothing but these glands undergoing the degeneration alluded to, which had no connection whatever with the disease of the vertebral column, which was one of simple caries. This, then, was a case which would have been called five or six years ago tuberculous disease of the spine. The latter condition was now conceded to be very rare.

Dr. Flint did not think that the question in regard to the tuberculous character of disease of the bone depended so much upon the actual presence of tubercle in the osseous tissue as upon the associated symptoms of the disease in other parts of the body.

Dr. Sayre expressed the belief that tuberculous disease in other parts of the body was the result of the neglected treatment of what in the beginning had been nothing more than an osteitis.

Dr. Smith remarked that Niemeyer believed that cheesy degeneration in any part of the body was the true parent of tuberculous disease of the lungs.

Dr. Sayre said that the true appreciation of the origin of these chronic bone diseases was of the greatest importance in not only establishing a rational method of treatment, but in enabling us, when early called to a case, to give a favorable prognosis.

Dr. Loomis did not see, if the recent views of tubercle were correct, why the condition of bone referred to could not be regarded as one of the stages of the inflammatory process.

There being no other specimens, the Society went into executive session.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, January 3, 1870.

Dr. George T. Elliot, Jr., President, in the Chair.

The President announced the admission to membership of Drs. J. Williston Wright, Oren D. Pomeroy, and D. A. Antonini.

Reports were read from the Committee on Intelligence and the Committee on Diseases.

Dr. Meredith Clymer read a paper on *Some Points in the Clinical History and Pathogeny of Locomotor Ataxia*, which we publish on p. 532.

The subject of naval staff rank was again brought up and briefly discussed, after which the Society adjourned.

Correspondence.

LETTERS ON ALBUMINURIA.

No II.

(from our Paris correspondent.)

To the Editor of the Medical Record.

Sir—In a preceding letter we have described the renal lesions of Bright's disease, *per enumerationem simplicem*. It is now necessary to inquire into their logical relations to one another. The various conditions known as congestion—exudative nephritis, acute inflammatory nephritis, catarrhal nephritis, tubular nephritis, desquamative nephritis—fatty degeneration, smooth large mottled kidney, fatty stage of inflammation, interstitial nephritis, gouty kidney, atrophy, small contracted kidney, granular kidney, cirrhosis—finally, amyloid degeneration, may be regarded in the light of one of two hypotheses, each equally famous. They may be supposed to belong to diseases, as distinct and independent as pneumonia and phthisis, linked together by the common symptom of albuminuria, as these by the common symptom of cough. Or, on the contrary, they may be regarded as successive steps in the evolution of an identical process, as are the gray miliary granulation, the cheesy pneumonia—the softening and excavations in the evolution of pulmonary tuberculosis. The practical importance of decision between these hypotheses is no less evident than the speculative interest. The boundaries between the two great divisions into acute and chronic disease most urgently require settlement. If the renal lesions characteristic of long standing albuminuria invariably commence in organic degeneration, the disease is at once chronic and incurable from the outset. On the other hand, the acute dropsy after scarlatina and exposure to cold, is radically different from Bright's disease, and can have no more tendency to pass into it than endocarditis into fatty degeneration of the heart. But if the initial stage of certain chronic affections be identical with that of acute affections tending spontaneously to recovery, the hope may be entertained of arresting them also in their march, if taken in time. Finally, the obstinacy of certain other forms of disease may be explained and predicted by considerations drawn from the differences they present in the initial lesion, differences which indicate their radical independence.

Again, the value of any one symptom among the vast array coincident with albuminuria cannot be determined until we know whether it is necessarily connected with the whole range of Bright's disease, or belongs to a group standing apart by itself. Does abundance of albumen in the urine threaten uræmia as well as dropsy? Is diarrhœa likely to supervene when the heart is affected? Does hæmaturia indicate an exacerbation of the disease, and the disappearance of albuminuria its cure? Will a patient live longer whose complexion is white or sallow? Does lead or alcohol tend more fatally to the production of Bright's disease? If dropsy and albuminuria be the pathological signs of renal disease, how explain their absence notwithstanding the existence of extensive structural alterations of the kidney?

These questions, suggested at random, indicate the infinite confusion that results, in the absence of the elementary analysis that shall rigorously attach each physical sign to a definite lesion of the kidney, and, grouping symptoms rationally or empirically around such elementary lesions, anticipate their association in the same manner as these are known to be associated.

We have shown that all alterations of structure in the kidney may be referred to one of three heads, according as they affect the blood-vessels, the uriniferous glands and tubes, or the intertubular connective tissue. In the list mentioned at the beginning of this letter, the first and last class of alterations (congestion and amyloid degeneration) affect the vascular structure; the second and third class (exudative nephritis, &c., fatty degeneration, &c.) involve the glandular elements; finally, the fourth class (interstitial nephritis, &c.) attack the connective tissue. Two questions are, therefore, involved in the decision of the theory of successive stages. First, Can an alteration affecting one element of the kidney pass into another confined to the same element? Second, Can such an alteration pass to another element, or to another alteration affecting another element? and having ascertained the possibility of such progression, we must further inquire into its necessity or invariability. Reply to these inquiries demands, first, study of the combinations that may be observed after death, in the same kidney, of

the lesions characteristic of each form of Bright's disease. Second, study of the combination and order of succession that may be presented during life by the groups of symptoms characteristic of the same forms.

We have already described at length the anatomical lesions. Before studying the combination of signs and symptoms, it is necessary to define the groups, and ascertain if they can be rationally or empirically attached to special lesions.

And here it is necessary to distinguish. Zimmerman,* in despair at the variety of symptoms that may coincide with the same anatomical alterations, seeks in the blood and general state of the system an explanation that pathological anatomy alone is unable to give. This confusion mainly arises from the qualitative differences that may be introduced by qualitative variations. Thus, to anticipate in our description, with equal degrees of alteration of the glandular and interstitial elements of the kidney, uræmia would be imminent in the first case, and scarcely possible in the second. But should the interstitial tissue become still more compromised, uræmia might supervene with the same facility as in the course of tubular disease, and the same result be reached later and by a somewhat different mechanism. Time must, therefore, always be taken into account, in determining the relation between a symptom and any given lesion.

The composition of the urine affords the best point of departure, especially in regard to its water, urea, and the morphological elements that may be abnormally present. The conditions which determine the transudation of albumen, being themselves open to much discussion, the variations of this constituent are of less value in the elementary diagnosis of renal lesion, and will be considered later. But in the absence of general causes, such as exist in cholera or fevers, the diminution of the quantity of water excreted by the kidney necessarily implies either alteration of the capillaries through which it should have been transuded, or obstruction of the tube through which it should have been excreted. Again, the presence of blood in the urine is positive proof that the capillaries have been ruptured by over-distension; of epithelium, that the urinary tubes are losing their lining; of oil globules, that fat exists in abnormal quantity in the gland cells; of casts, that some foreign substance has exuded into the tubes and moulded itself upon them. If the diameter of these casts be less than that of the tubes lined with epithelium ($\frac{1}{1000}$) it is certain that the epithelium is still in place; if large ($\frac{1}{500}$) that the tube is denuded. Casts covered with epithelium indicate desquamation of the urinary tubes; granular casts, the crumbling away of their epithelium, after a longer duration of disease; casts black and shining with oil globules, extensive fatty infiltration and degeneration, with complete destruction of epithelium. The qualitative analysis of these elements must be controlled by estimate of their relative abundance. In small quantity they have little significance, since the fall and renewal of epithelium cells, the deposit of fat between their wall and nucleus, the exudation of pale, transparent, finely granular cylinders formed of mucine (Cornil) are ordinary phenomena of health. Moreover, Johnson and Dickinson † have noticed an abundant deposit of oil in the renal epithelium, in cases of chronic extra-renal disease,—deposit formed here, as in the epithelium all over the body, to remain temporarily and then be absorbed. On the other hand, an immense amount of oil, associated with complete destruction of the epithelium, is as unsafe an indication of Bright's disease as a small quantity contained in normal cells, for it is characteristic of the acute, fatty degeneration caused by poisoning with phosphorus,* and is entirely independent of idiopathic nephritis. Finally, a considerable amount of urinary deposit may be formed in consequence of lesions occupying a comparatively insignificant extent of the renal structure. The inferences drawn from it, therefore, should always be controlled by considerations of the quantity of urine and of urea, state of the blood, general symptoms, &c.

Congestion.—The characteristic sign of congestion is the presence of blood in the urine,—and reciprocally, we have seen that the presence of blood always indicates some degree of congestion. It may exist in microscopic quantity, only recognizable by the form of the blood-corpuscles, or be sufficient to render the urine smoky or black. Sanguinolent urine is necessarily albuminous, even in the absence of conditions that might determine the transudation of albumen through unruptured capillaries. In this case the albumen is derived from the effused blood, and varies in the same proportion, which is not the case when congestion complicates pre-established albuminuria. There are two conditions in which the kidney becomes entirely congested, 1st, during the convalescence from certain acute diseases,—principally scarlatina; 2d, idiopathically, after exposure to cold.

In the first case, the urine becomes suddenly albuminous and smoky, and the cellular tissue throughout the body invaded by œdema, but there is no pain in the loins, fever, or any exacerbation of the original disease. In the second case, when the affection occurs in the midst of health, the general symptoms are more distinctly marked; there is general malaise, lassitude, perhaps slight fever, loss of appetite, nausea. An attack of acute congestion, however, remains scarcely ever limited to the repletion of the blood-vessels. The lining of the uriniferous tubes is irritated, and the congestion passes insensibly into the second form—catarrhal nephritis.

Its characteristic sign is the presence of epithelial cells in the albuminous urine, mingled with the blood-corpuscles. These are remarkably abundant in scarlatinous albuminuria, and when death occurs in the course of this affection, the cortical substance is found nearly white, all the convoluted tubes being stuffed with young epithelium. According to Rindfleisch, these young cells come from cells formed in the conjunctive tissue of the peripheric stroma, passing into the uriniferous tubes across pores pierced in their basement membrane. In the urine, as in the tubes, they are found voluminous, and in a state of troubled tumefaction, distended with albuminous granulations that partially mask the nucleus. These disappear on the addition of acetic acid. Many of the cells are found in various degrees of disintegration, or even filled with fat globules, which appear as soon as the desquamation has lasted for a few days.

This simple catarrh, the almost immediate consequence of congestion (which itself may be insufficient to render the urine smoky, and only be manifested by the presence of blood-corpuscles in the urine), is not attended with symptoms of greater severity than the congestion alone. In scarlatinous albuminuria the renal lesion often arrests itself at this point. In the albuminuria supervening after exposure to cold, the affection generally progresses to a third stage, Exudative Nephritis.

The transition is marked by the appearance in the urine of still another morphological element—casts or cylinders of various forms.

We have seen that certain extremely pale, finely

* Deutsche Klinik, 1855. † Pathology of Albuminuria.

* Cornil, Thèse de Concours, 1863. Ranvier, Archives gen., 1868. Lehbert, Archives gen., 1865.

granular cylinders, about equal in diameter to the cavity of the uriniferous tubes, still invested with epithelium, may be observed in the urine in health, and are supposed by Robin to be formed of mucine. But the hyaline casts are quite transparent, and with firmly defined outline. They are of small diameter, and mingled with casts covered with epithelial cells, and others whose surface is moderately granular, attesting the crumbling away of the disintegrated epithelium. These casts may be present at the first examination of the urine, the affection having begun with greater intensity, and advanced rapidly to the exudative stage. In this case the illness has been ushered in with chills and shivering, not very intense, but general and prolonged. The chills are followed by fever, pain in the lumbar region of the back, vomiting, violent headache. Drowsiness is a frequent and characteristic symptom, and of great value in distinguishing between the acute nephritis and other febrile affections, especially small-pox at the initial stage, where pain in the loins is a symptom even more noticeable than when the kidneys are the seat of disorder. The urine diminishes notably in quantity, and at the beginning its specific gravity may even be increased, as in other phlegmasias and fevers. The reduction of water is more rapid than the reduction of urea, so that the proportion of solids may seem relatively increased, although they are absolutely diminished. In a few days, however, the impairment in the cell functions becomes manifest, and the specific gravity of the urine falls from diminution in the elimination of its solid materials. Micturition is frequent, owing to reflex irritation of the bladder. The urine contains blood in various proportions, as previously noticed, and is strongly albuminous —sometimes becoming nearly solid on the addition of nitric acid. Œdema is rapidly formed and extended, constituting the most conspicuous phenomenon of the group, and which has procured for it the title of acute dropsy. Interpretation of the real significance of the casts found in the urine is of considerable importance, since upon it has been made to depend the theory of the renal lesion of which they are symptomatic. According to Frerichs, these casts consist of fibrine, exuded from the blood-vessels under circumstances analogous to those of any parenchymatous inflammation, and coagulated in the cavity of the uriniferous tubes, upon whose form they are moulded. Frerichs designates the lesion, therefore, as marking the exudative period in albuminous nephritis, and Virchow calls it Croupal* Nephritis, the analogue of pneumonia.

Grainger, Stewart, and Dickinson follow Frerichs in this interpretation, and Traube observes that the variations of pressure in the blood-vessels constitute a regular scale, of which the first degree determines the transudation of albumen, the second fibrine, and the third ruptures them, causing the effusion of the blood itself. In hæmaturia, without casts, it is the capillaries in the Malpighian plexus that are ruptured, while the larger vessels surrounding the tubes resist the pressure. Later, these allow the transudation of fibrine, and finally may themselves give way in totality, causing hæmorrhage much more abundant than in the first case.

But Cornil and Rindsfleisch declare that these casts do not present the reactions of fibrine, and are formed by a colloid secretion from the epithelial cells, or from the débris of the cells themselves, agglutinated together. In this view they are analogous, not to the exudation of parenchymatous inflammation, but to the mucous secretion which accompanies the epithelial proliferation on inflamed mucous membranes. Hence Cornil resumes this exudative affection, with that characterized by the desquamation of epithelium, under the common title, Catarrhal Nephritis; and Dickinson, in the same way, classes them together as the several modes of Tubular Nephritis.

No special justification is required for the term inflammation as applied to these lesions. The entire range of pathology may always be ransacked at any moment that it becomes necessary to define a lesion as inflammatory. To avoid this excursion, it may here suffice to adduce the pain, fever, exudation, and proliferation of tissue (epithelial cells), as the assemblage of characters whose ensemble is usually defined as inflammation. The terms Parenchymatous Nephritis, Nephritic Albuminuria, are applied by the best modern writers in virtue of this well-founded analogy.

By extension, however, the same term is retained, when the only character of inflammation present is the proliferation of tissue. And this frequently occurs.

For although epithelial casts are constantly present in acute febrile albuminous dropsy, the converse is by no means true. The disease, although clearly traceable to exposure to cold, may creep upon the patient silently and insidiously, manifesting itself by slight œdema about the ankles and puffiness of the face, without any fever, lumbar pain, difficulty of micturition, or unusual appearance of the urine calculated to fix the patient's suspicion upon the kidneys as the seat of disorder. Chemical and microscopical examination of the urine, however, discovers it to be decidedly albuminous, and containing blood-corpuscles, free epithelial cells, hyaline casts, and epithelial cylinders. Or these latter may succeed to simple albuminuria, without any exacerbation of the general symptoms. In this case it is probable that the desquamative and exudative lesions are confined to a comparatively small number of tubes, and are insufficient to excite the nervous disturbance upon which pain and fever depend.

In other cases, these seem to be escaped in virtue of the unusual extent of the tubular obstruction, which, by interfering with the elimination of urine and urea, determines a drowsy, apathetic condition, in which the sensibility and capacity of reaction are equally diminished.

The frequent succession of the foregoing alterations in the composition of the urine indicates the frequency with which one kind of lesion of the vascular element of the kidney may be followed by another kind of lesion of the glandular. The possibility of the sequence is fully established, and our second question answered before our first. To establish the necessity of this sequence is not so easy, because so many cases of albuminuria, in which the urine is loaded with epithelial cells and casts, do not come under observation until long after the *début*, and have been ushered in by no acute febrile attack, or even congestion sufficiently violent to notably affect the color of the urine. All analogy shows, however, that congestion sufficient to greatly modify the nutrition of a part, and determine the proliferation of its epithelium, may be insufficient to cause the rupture of the blood-vessels. The supposition, so widely admitted, that the hyaline cylinders are formed of coagulated fibrine, exuded from the blood-vessels under increased pressure, necessarily implies congestion as the mechanical condition of their formation. The theory of cell-secretion implies it by analogy, as the vital condition of increased activity. Finally, although the delicate Malpighian plexus probably ruptures under this amount of pressure, resisted by the tubular vessels, the exudation in the tubes may be sufficient to prevent the escape of so minute a quantity of blood, or only permit the gradual filtration of the blood-corpuscles. Dickinson relates a remarkable

* The term croupal is used by German pathologists to characterize inflammation attended by fibrinous exudations.

case of acute desquamative nephritis, supervening after scarlet fever, in which the tubes were so completely blocked up as to cause the nearly total suppression of urine, and entirely prevent the passage of blood, although, after death, the kidneys were found in a state of intense congestion. The writer justly observes, that in severe cases of this form of disease the absence of hæmaturia is a much more dangerous sign than its presence.

From these considerations, therefore, and in the absence of any direct proof to the contrary, we may presume that the sequence between vascular congestion and catarrhal nephritis, or rather the dependence of the latter upon the former, is not only possible but necessary. Congestion may stop short of desquamative nephritis; but this always originates in some degree of congestion—a fact that confirms the inflammatory nature of the desquamation.

If the symptoms progress in severity, or simply present induration, the morphological analysis of the urine is nearly always complicated by the appearance in it of fat globules. Their further description must therefore be confounded with those characteristics of the

3d Class—Fatty Degeneration, etc. The pathognomonic sign of fat deposit in the uriniferous tubes, is the presence in the urine of fat globules contained in epithelial cells or studding granular cylinders. We have already alluded to the circumstances which must be taken into account in a diagnosis based upon fatty urine. It is only when the epithelium containing the fat is shrivelled and granular, when the cylinders are not too black, and the free oil globules not too abundant, that the fat can be referred to that condition of the kidney known as fatty enlargement. The possibility of sequence between congestion, catarrhal nephritis, and fatty degeneration, as manifested by the successive appearance in the urine of blood, epithelial cells and casts, and fat globules, is as well established as that between congestion and desquamation. All authors relate cases in which, after an acute attack of albuminuria and dropsy, ushered in as described above, the epithelial casts are replaced by hyaline tubes studded with fat, the blood disappears from the urine at the same time the febrile symptoms subside, the albuminuria and dropsy may diminish, the patient considers himself well. After an interval of some months, during which he complains of nothing but lassitude, and perhaps frequent vomiting, the patient's illusions are destroyed by a renewal of the dropsy, suddenly, after fresh exposure to cold—or establishing itself gradually and insidiously. The characteristics of the urine in these cases are the same as in the catarrh, with the addition of fat. It is diminished notably in quantity and in specific gravity—the latter corresponding to the diminution of urea. The dropsy is extensive from the beginning of the disease, or of the renewed attack, and death most frequently results from effusion, in order of frequence, into the cellular tissue, the peritoneum, pleura, or pericardium. These symptoms result, as in the case of simple desquamative catarrh, from the blocking up of the uriniferous tubes, in this case by an agglomeration of granular and fatty granular masses, crumbling cells, and cylinders of all varieties. Whenever—by means of powerful diuretics—a stream of urine is sent through the embarrassed tubes, the dropsy diminishes.

The same series of chronic symptoms, as we have remarked in the case of catarrhal nephritis, may develop themselves insidiously from the beginning; after months of ill health vaguely defined, or in the course of some chronic disease, œdema of the ankles may appear, and examination of the urine detect albumen, epithelium, and fat. But fat is never discovered during the first days of albuminous dropsy occurring after exposure to cold, etc.

On the other hand, we have seen that all cases of desquamative nephritis present an admixture of fat globules in the urine after a period of varying duration, and the general symptoms characteristic of this lesion cannot, after a certain prolongation, be distinguished from those of fatty enlargement. It is certain, therefore, that fatty degeneration may result from a destructive process consequent upon desquamative nephritis.

According to a theory once professed by Johnson as exclusive, and still retained by this distinguished writer as applicable to at least a certain number of cases, the fatty degeneration of the epithelium is the initial lesion of a peculiar affection, distinct from inflammation, and originating in "an unsuccessful effort of the kidney to eliminate a superfluity of fat from the system, and the consequent fatty *infiltration* of the glandular cells." This infiltration—occurring as we have seen in the course of chronic diseases, when the fat left unappropriated by the slackened nutritive processes has a tendency to deposit itself temporarily in the epithelium all over the body—should explain the frequency of Bright's disease as a secondary affection.

But, on the one hand, this fatty infiltration differs distinctly from the degeneration, both in its anatomical characteristics and the symptoms to which it may give rise. The infiltrated epithelium is normal and perfect in structure, the oil globules are large, abundant, and distinct,—the outline of the cell firmly defined, the nucleus generally visible,—and there is no sign of the granular tumefaction,—the "cloudy swelling," characteristic of cellular disease. The same peculiarities may be observed in the fatty epithelium that finds its way into the urine, where it is only present in small quantity, entirely disproportioned to the amount of fat deposited in the uriniferous tubes and unaccompanied by fatty granular casts. The amount of desquamation that takes place under the influence of the fatty infiltration only slightly exceeds that of health, and the vitality of the epithelial cells is not seriously injured by the deposit. This may also be completely absorbed, as from other epithelium, and Beer has observed the renal stroma, especially the angular spaces left between the conjunctive cells, entirely filled with fat globules, presenting appearances similar to those of the fat globules in the intestinal villosities during digestion.

"Within certain limits," observes Dickinson, "fat appears to be but a temporary inmate of the epithelial cells."

On the other hand, the disease most influential in determining fatty infiltration—tuberculosis—has no marked connection with Bright's disease; indeed, Dickinson, after numerous autopsies, declares to have observed even a sort of antagonism between them. Conversely, the affections unanimously recognized as causal conditions of the morbus Brightii—valvular disease of the heart, gout, alcoholism, pregnancy, or syphilis, scrofula, suppurating osteitis—tend to produce these amyloid degeneration, those interstitial nephritis, and have no influence in the formation of the large, smooth mottled kidney of fatty degeneration. It is probable, therefore, that Johnson's theory reposes on an inaccurate connection between facts, each in itself accurately observed,—fatty infiltration of the kidney, passage of a certain amount of infiltrated epithelium into the urine,—development of Bright's disease in the course of chronic extra-renal affections.

New Instruments.

"SCREW HOOK" FOR REMOVING FOREIGN BODIES.

By L. ELSBERG, M.D.,
CLIN. PROF. DISEASES OF THROAT, UNIVERSITY MED. COLL.

Surgeons are aware not only of the frequency with which foreign bodies, more especially pellets of cotton, impacted in the ear, are met with, but also of the difficulty sometimes experienced in removing them. When the foreign body is not too heavy, too large, or too rough, proper syringing may effect its dislodgment; cherry stones, beads, peas, beans, etc., may sometimes be removed by a small spoon similar to that often found attached to grooved directors; occasionally, particularly when not too far in the canal, the substance may be seized and extracted with a proper ear-forceps. But many cases occur in which these contrivances fail, and in which persistent attempts to remove the foreign body by instrumental interference cause great pain, laceration, hæmorrhage, and even violent inflammation, leading to the most serious consequences.

Having within a short space of time seen two cases in which very grave suffering had been brought about by such unsuccessful attempts, and one other in which the foreign body was most firmly impacted at the very bottom of the tube, which had not yet been interfered with,—and having had in these three cases almost immediate success in removing the substance by an instrument, not hitherto, as far as I am aware, employed for this purpose,—I desire to call the attention of the profession generally to it.

The annexed wood-cut gives perhaps as good a representation of it as a drawing can, but hardly good enough to convey a proper idea of it. I call it the "Screw Hook," because each of the two little prongs has a letter S shape in different directions. The instrument is found in "eye-cases," and has been proposed by Heurteloup, I think, for fixating the eye-ball; as I understand, it is considered of very little or no use for that purpose by oculists. But it never should be wanting in an "ear case."

The instrument I have hitherto employed was straight, but in order to have the hand entirely out of the way of the light, I have ordered the wire stem to be made longer, and bent at an angle with the handle. The operation of the screw hook is very simple, and, in careful hands, quite safe. It can be introduced and laid against even a sensitive part without causing pain or injury. On turning it around its axis from left to right, the prongs try to bury themselves into the substance* they rest against; on turning it from right to left, it unscrews, taking no hold or letting go if previously fastened. Once seized, the foreign body can easily be extracted with it.

In addition to the three cases alluded to above, I have also removed with the same instrument a bean from the nose of a child two and a half years old, which was really out of sight, and yet was luckily caught on the first introduction of the screw hook.*

Epithelioma Rarely Occurring in the Female.—Epithelial cancer of the lip almost always affects the lower lip, and very rarely occurs in woman.

* Manufactured by George Tiemann & Co.

Medical Items and News.

New York Pathological Society.—The following officers of this Society have been elected for the ensuing year:—Dr. Joseph C. Hutchison, President; Dr. A. L. Loomis, Vice-President; Dr. George F. Shrady, Secretary; Dr. W. B. Lewis, Treasurer.

Clinic on Mental Diseases.—Professor Echeverria, of the University Medical College, has instituted a Clinic on Mental Diseases, at the Epileptic and Paralytic Hospital, on Blackwell's Island, every alternate Tuesday. The intermediate Tuesday's Clinic takes place at the College building, 426 East 26th street. It is on nervous diseases. The profession is invited to attend.

To Prevent Pitting in Small-Pox.—By covering the face with cerate, and sprinkling this with starch, so as to form a paste, M. Bourdon thinks he has succeeded in preventing the pitting of small-pox.

Inebriation Hereditary.—Dr. Turner, in his "Second Annual Report of the State Inebriate Asylum" states that out of 1406 cases of delirium tremens, which have come under my observation, 980 had an inebriate parent, or grandparent, or both. He believes if the history of each patient's ancestors were known, it would be found that 8 out of 10 of them were free users of alcoholic drinks.

Relative Health of the Higher Strata of Air.—In the period between last February and June, 1,192 persons died in Palermo, Italy; 605 on the ground floors, 365 on the first floor, 119 on the second floor, and 104 on the third floor of the houses.—*Cor. Med. and Surg. Reporter.*

New Chemical Nomenclature.—At a congress of Italian naturalists, which has recently taken place in Catania, Professor Zurno, of Naples, proposed a reform in the chemical nomenclature of organic bodies, and a committee of Italian chemists has been appointed to draw up a new system of nomenclature for presentation at the next Congress in 1870.

Medical Students in England.—The provincial medical schools of England have had a large entry, so that there is a considerable increase in the number of medical students over the last few years. More than 1,550 gentlemen are pursuing their studies in the metropolitan and provincial schools together, and as the returns are not yet quite complete, perhaps the number may reach 1,600. Of these between 1,200 and 1,300 are in London.

New Publications.

Books Received.

A Winter in Florida, etc.; together with Hints to the Tourist, Invalid, and Sportsman. By Ledyard Bill. New York: Wood & Holbrook. 1869.

A Manual of Clinical Medicine and Physical Diagnosis. By Thomas Hawkes Tanner, M.D., F.L.S., etc. Third American, from second English Edition, revised and enlarged. By Tilbury Fox, M.D., London. Phila.: H. C. Lea. 1870.

Bellevue and Charity Hospital Reports. 1870. New York: D. Appleton & Co. 1870.

Strong Drink and Tobacco Smoke: The Structure, Growth, and Uses of Malt, Hops, Yeast, and Tobacco, with One Hundred and Sixty-Seven Original Illustrations, drawn on Steel. By Henry Prescott, F.L.S. New York: William Wood & Co. 1870.

Medical Society of the State of New York.

SIXTY-THIRD ANNIVERSARY.

First Day—Feb. 1, 1870.

The Medical Society of the State of New York met, pursuant to statute, in the Common Council Chamber, City Hall, Albany, on the first day of February, 1870.

PRESIDENT'S ADDRESS.

The President, Dr. James P. White, of Buffalo, called the Society to order at 11 A M., when prayer was offered by Bishop Wm. C. Doane, D.D., after which the President delivered his inaugural address.

After sketching, according to custom, the progress of medicine throughout the State, he alluded to the importance of establishing a regular course of study in our medical schools for psychology, and the importance of each county society printing and disseminating the new nomenclature of disease adopted by the Royal College of Physicians of London. He then touched upon the following point, which will doubtless interest a vast majority of practitioners in rural districts:

"There is a crying evil, which I wish it were practicable for this Society to lessen, most severely felt in all the small towns and rural districts in this State, by the junior members of the profession. Allusion is here made to the low rate of compensation for medical services. In addition to a large modicum of gratuitous labor everywhere given to the poor and the clergy, the physician finds himself working very hard night and day, with scarcely sufficient revenue to respectably support and educate his family.

"Obliged to economize in every direction, the ambitious young man is compelled to forego the purchase of such books and instruments as are requisite to his professional advancement. It often occurs in a very extensive consultation practice in the counties in the western portion of the State, that I find the 'livery man' charging as much for an ordinary conveyance to the house of the patient, as the medical attendant receives for his services travelling over the same route in his own conveyance. This lamentable condition has arisen frequently from the fact that the old practitioner or pioneer in the profession, having become 'forehanded, still lives to compete in the race, and deriving his support chiefly from his farm, continues to charge the prices which he established half a century since. Whether this Society can do anything to remedy or mitigate the embarrassment of many a high-spirited, but ill requited laborer, remains for your deliberate consideration. Could all the county societies be induced to adopt and adhere to a reasonable tariff of charges, the correction of this grievance could be easily accomplished. This schedule of prices, sanctioned by the fellow practitioners of the county, could be referred to by the physician, instead of the habitual charges of his antiquated neighbor, in settling all questions of finance with his patients. The expense of living, the cost of library and apparatus, have greatly increased within a few years, and the fees for services have not advanced,—certainly not in the same ratio. Many an aspiring practitioner who would be a useful member of this Society and be profited by listening to its proceedings, is debarred the privilege of attendance, by the inadequacy of his income. Can this Society point out a remedy for this unfortunate state of things, with our brethren?"

Dr. B. P. Staats, of Albany, offered the following, which was adopted:—

Resolved, That the thanks of this Society are due, and are hereby tendered to its President for his Inaugural Address, and that a copy thereof be referred to a committee of three, to report what action should be taken in reference to the subjects contained therein.

Dr. C. C. Wyckoff moved that the thanks of this Society be presented to Bishop Doane for officiating in the opening exercises of the meeting.

The President announced the following Committees:—

Committee of Arrangements—Drs. H. W. Dean, W. H. Bailey, and N. C. Heusted.

Business Committee—Drs. Arnold, Whiton, and Crandall.

On Credentials—Drs. W. B. Bibbins, Odell, and Townsend.

On President's Address—Drs. J. P. Gray, of Utica; J. C. Hutchison, of Brooklyn; and Chas. H. Porter, of Albany.

Dr. Joseph Bates, of Lebanon Springs, presented a report as delegate to the Vermont Medical Society, which was duly accepted.

REPORT ON PHARMACOLOGY.

Dr. Squibb, on behalf of the Committee on Pharmacology, made a report, appended to which were the following resolutions:—

Resolved, That the Medical Society of the State of New York, as a duly incorporated body, desires to be represented in the National Convention of 1870 for the revision of the United States Pharmacopœia.

Resolved, That Drs. Caleb Greene, of Homer, Cortland county; Wm. Manlius Smith, of Manlius, Onondaga county; and Edward R. Squibb, of Brooklyn, Kings county, New York, are hereby appointed and authorized to serve this Society as representative delegates in the National Convention of 1870, for the revision of the Pharmacopœia of the United States.

Resolved, That the above-named delegates be authorized to agree for this Society to any reasonable assessment that may be made by the Convention for money to carry out its objects.

Dr. L. A. Sayre, of New York, read a paper "On a Case of Dislocated Tendons of the Peroneals and Tibialis Postici Muscles of both Limbs, caused by wearing high-heeled Boots."

The following papers were presented:—

"Lithotomy and Lithotrity; their Application to the Treatment of Urinary Calculi," by Dr. Gurdon Buck, of New York.

"The Big Nævus," by Dr. Geo. H. Hubbard.

"Malignant Tumors of the Abdomen," by Dr. Frederick Hyde.

"On the Relations of Fatty and Amyloid Degeneration," by Dr. S. O. Vanderpoel.

"Case of Fracture of the Skull," by Dr. Hiram Corliss.

"Chlorate of Potassa in Serous Effusions," by Dr. J. C. Peters, of New York.

Dr. Geo. H. Hubbard read a paper entitled "*The Big Nævus.*" (*II*)

The Business Committee read by title the following papers: "Compound Monstrosities," by Dr. Geo. J. Fisher, of Sing Sing; "Address delivered before the Chemung Co. Medical Society at Elmira," by Geo. H. Squire, M.D.; "On the Relations of Fatty and Amyloid Degenerations," by S. O. Vanderpoel, M.D., of Albany; "Cases of Chorea," by W. C. Wey; "The Life and Character of the late Dr. Alden March. An address delivered before the Albany Co. Medical Soci-

ety," by Dr. James L. Babcock, President of the Society. All of these were in due course referred to the Committee on Publication.

The Committee on Credentials asked for instructions in regard to the credentials of delegates who appeared and whose term of service had expired. None others having been selected to fill their places, on motion of Dr. Corliss, the delegates referred to were admitted until their successors had been duly elected.

On motion of DR. VANDERPOEL, the list of Honorary members of the Society was read by the Secretary, and several corrections made.

DR. HIRAM CORLISS read a paper entitled "Fracture of the Skull," which was referred to the Committee on Publication.

The Secretary read a communication from Dr. N. S. Davis, of Chicago, from the Committee on Education of American Medical Association, urging the appointment of Boards of Examiners in different States. Referred to the following committee of three: Drs. Hutchison, Graves, and Perine.

On motion of Dr. Underhill, the Committee were requested to report on the morrow morning.

After the transaction of business of minor importance the Society adjourned until half-past three o'clock.

FIRST DAY—AFTERNOON SESSION.

The Society convened at half-past three, and was called to order by the President.

Reading the minutes was omitted until the morning of each day.

The President announced the following Committees:

On Nominations—J. V. P. Quackenbush, R. C. Styles, E. H. Parker, B. F. Sherman, Geo. A. Dayton, Wm. C. Wey, H. D. Didamus, C. C. Wyckoff.

On Ethics—J. G. Orton, F. Burdick, A. F. Doolittle.

The President then read the following letter from the Governor:

EXEC. CHAMBER, ALBANY, Feb. 1, 1870.

Jas. P. White, M.D., Pres't N. Y. State Medical Society:

DEAR SIR—Do me the favor to say to the officers and members of the State Medical Society, and of the Albany County Medical Society, and to such other physicians as may be in attendance at your meeting, that I shall be happy to receive them at the Executive Residence on Wednesday evening at 9 o'clock.

Very respectfully yours,
JOHN T. HOFFMAN.

The invitation was accepted.

DR. WYCKOFF offered the following:

Resolved, That a committee be appointed to invite the Governor, and such members of the Legislature as belong to the profession, to participate in the deliberations of the Society.

Carried.

The Treasurer then made his report, which was accepted, and a committee of three appointed to examine the accounts.

DR. ARNOLD read a report of a singular case of enlarged kidney. The paper was referred to the Publication Committee.

DR. ARNOLD also referred to the injuries given women by using sewing-machines. He also read a biographical sketch of W. H. Potter, M.D.

DR. CHARLES H. PORTER read a paper on certain discolorations observed on the cadaver, and the means of distinguishing them.

DR. PETERS read a paper on Chlorate of Potassa. Referred.

PROF. E. M. MOORE, of Rochester, read a paper on the treatment of Colle's Fracture, which will appear in a future number.

DR. SAYRE, of New York, and Dr Corliss, of Washington County, remarked on the paper.

DR. FRED. HYDE read a paper entitled Malignant Tumors of the Abdomen.

DR. DEAN introduced Dr. Allen, delegate from Pennsylvania, who was kindly welcomed by the President.

DR. ALLEN responded appropriately.

DR. CORLISS made his report as Delegate from the State Medical Society to the Illinois State Medical Society.

DR. MOORE made some remarks on fractures of the clavicle, and, on motion of Dr. Sayre, he was requested to put them in writing.

DR. BAILEY referred to what appeared to be a mistake in the number of the year given in Transactions.

On motion, it was requested that the Secretary investigate the subject, and ascertain if possible if it was a mistake, and if so when and where made.

Adjourned until 10 A.M. on Wednesday.

SECOND DAY—MORNING SESSION.

The Society was called to order by the President at the appointed time. The Rev. Mr. Bailey, of Albany, opened the exercises with prayer, after which the minutes of the previous day's session were read by the Secretary, Dr. W. H. Bailey, of Albany, and on motion duly approved.

The President read the following communication from the Medical Society of the State of Minnesota:—

TELEGRAM FROM MINNESOTA STATE SOCIETY.

ST. PAUL, MINN., Feb. 2, 1870.

To the President of the New York Medical Society:

The Medical Society of the North Star State, Minnesota, sends fraternal greetings to the Medical Society of the Empire State, New York. Health, happiness, and longevity to their members, and durability to their ancient and world-renowned organization.

SAMUEL WILLEY, President.

DR. JOEL FOSTER moved that a proper response be sent to the above. Carried.

DR. HOLBROOK reported as delegate to the New Hampshire Medical Society.

The Vice-President, at the request of the President, prepared a reply as follows:—

REPLY TO MINNESOTA STATE SOCIETY.

To the President of the Medical Society of the State of Minnesota, St. Paul:

The Medical Society of the State of New York reciprocates in the warmest manner the kindly greetings of their brethren of the State of Minnesota. May our united labors materially add to the advancement, prosperity, and usefulness of our common and beloved profession!

JAMES P. WHITE, President.

ALBANY, Feb. 2, 1870.

LITHOTOMY AND LITHOTRITY.

DR. GURDON BUCK read a paper with the above title for the purpose of glancing at the respective merits of the operations, detailing several cases in point, and describing at considerable length the method of procedure with the lithotrite and supplementary instruments.

DR. HYDE remarked upon the candid manner in

which the cases referred to were reported, and moved that a vote of thanks be tendered to him.

Dr. Hutchison opposed the resolution on the ground that it would tend to create invidious distinctions.

Dr. Hyde withdrew the resolutions.

Dr. Armsby also offered some remarks, in which he suggested an improvement upon the lithotrite.

THE OLDEST PERMANENT MEMBERS.

Dr. Bibbins, on behalf of the Committee on Credentials, stated that the two permanent members, who, with a single exception, had longest held the office as such of this Society, were in attendance at this meeting. They are Dr. Jas. McNaughton, of Albany, and Dr. Joel Foster, of New York City—the former elected to permanent membership in 1831, and the latter in 1832.

Dr. Crandall made a report as delegate to the Medical Society of New Jersey.

The business committee announced a number of papers by title.

ON THE ENDOSCOPE.

Dr. Robert Newman, New York, made some remarks upon the uses of the Endoscope, describing the instrument, and exhibiting the same. After presenting some auxiliary contrivances of his own for local applications to the urethra and bladder, he exhibited some very ingenious spray-producers on the principle of one capillary tube inclosing another, and so fashioned as to enable the operator to direct the vapor upwards, downwards, or straight forward. These latter he had constructed for him by an artist in glass, W. A. Damuth, 15 North William street, New York.

NEW INSTRUMENT FOR RUPTURING THE MUCOUS MEMBRANE OF THE PREPUCE IN PHYMOSIS.

Dr. J. C. Hutchison, of Brooklyn, read a short description of a new instrument for the rupture of the mucous membrane of the prepuce for accidental phymosis, which will be published in a future number.

DOES DELIRIUM TREMENS OCCUR IN THE NEGRO?

Dr. Staats reiterated the question which he had propounded to the Society before, in reference to the fact as to whether delirium tremens ever occurs in the negro. Although having treated in the Albany Penitentiary fully four hundred cases of disease in negroes, he had failed to meet with a single one of *mania à potu*.

Dr. Graves remarked that he had met with two cases in the negro; Dr. Sherrill had seen one, Dr. Hun two, and Dr. Stiles one.

The Committee on Resolutions from the American Medical Association offered the following:—

CONCERNING A BOARD OF EXAMINERS.

The Committee appointed to consider the preamble and resolutions pertaining to the improvement of medical education in this country, which were submitted to this Society by a committee of the American Medical Association, beg leave to report—

I. That this Society now as ever cordially sympathizes with every effort for the elevation of the standard of medical education, and has always been ready to co-operate with any practicable method for the attainment of so desirable an object.

II. That we agree with the Committee of the American Medical Association that legislative enactments "in the various States of this Union clearly show that no reliance can be placed on either the uniformity or permanency of any laws now relating to the practice of medicine."

III. That we endorse the opinion expressed by the Committee of the American Medical Association, "that whatever is done to establish and maintain a just and fair standard of medical education throughout our whole country must be done by the profession itself through its own voluntary organizations, in the same manner that it now establishes and enforces its code of ethics." But we are not prepared to recommend the "appointment annually of one or more Boards of Examiners, whose duties it shall be to examine all persons, whether graduates of colleges or not, who propose to enter upon the practice of medicine in their respective States, except such as have been previously examined and licensed by a similar Board in other States," because we deem such a plan impracticable at the present time.

Jos. C. Hutchison.
Joshua B. Graves.
A. M. Perine.

Dr. Chamberlain read a communication from the Medico-Legal Society of New York, asking a suspension of the action of the Society upon the question of the adoption of the resolutions, giving as a reason that a bill was being framed having for its special object the regulation of the practice of medicine by stringent legislative enactment.

The matter was warmly discussed by Drs. Staats, Sayre, and others, resulting in the whole being laid upon the table; after which, a motion to adjourn until half-past three P.M. prevailed.

Second Day—Afternoon Session.

The Society convened at three and a half o'clock. Dr. Burr, the Vice-President, called the meeting to order. Dr. Heusted, from the Committee on Arrangements, reported the names of several gentlemen invited to participate in the exercises during the present session.

Dr. E. H. Parker, as Chairman of the Committee on Prize Essays, reported that no communication received had been considered worthy; accepted and adopted. The same gentleman moved that the amount for the Merrit H. Cash Prize be one hundred dollars for the coming year.

THE CORLISS PRIZE.

Dr. Lansing offered the following, which was adopted:—

Resolved, That the Publication Committee announce, through the medical journals of this State, the prize offered by Dr. Corliss, viz., one hundred dollars for the best essay on the cause, prevention, and cure of tuberculous phthisis; and that they also announce, at the same time, a prize of one hundred dollars from the Merrit H. Cash fund for the best essay on any medical subject; such essays to be submitted to the Prize Essay Committee on or before the 1st day of December next, and subject to the regulations adopted by this Society.

THE REPORT ON BOARD OF EXAMINERS AGAIN.

Dr. Sayre moved to take the report regarding the communication from the American Medical Association from the table; which was carried, and, after a little parliamentary sparring, was finally adopted.

PEPSINE.

Dr. J. S. Hawley, of Greenpoint, made some remarks upon the action and uses of pepsine, which were accompanied with exhibitions of specimens of the articles.

AN APPARATUS FOR FRACTURE OF THE THIGH.

Dr. H. R. Rogers next offered some remarks upon the treatment of fractures of the thigh by an apparatus which he had devised. The splint was very handsomely made of walnut, soft cushions, pads, brass hinges, braces, screws, levers, etc., and was besides rather expensive. It doubtless served its purpose as a piece of

mechanical ingenuity; but, practically considered, it was far short of replacing the simpler contrivances now so well known and appreciated by the profession.

The gentleman was interrupted several times by different members, one of whom asked "if the gentleman could not be permitted to advertise his splint in the ordinary way." But these interpolations were declared out of order, and the speaker, with a commendable coolness, proceeded.

When he had finished, Dr. C. C. P. CLARK, of Oswego, arose to protest against the parade of wares to the Society. He stated that he had had considerable experience in the treatment of fractured bones, and had got along without such a splint, and would try to do so in future. The market was already flooded with these cumbersome contrivances, and for the sake of the gentleman who had exhibited the splint he hoped it would succeed; but in principle he believed that the profession would be better without it, and concluded by moving that the exhibitor be permitted to withdraw his apparatus.

DR. SAYRE believed that if surgeons understood any one thing it was the treatment of fractures of the thigh, and that they had come to a wise conclusion that the less cumbersome the apparatus was, the better for the patients. The best surgeon was he who used the simplest splints and the most brains. Any surgeon who could not dress a fracture without a box-ful of manufactured splints, had better not practice at all. In the vast majority of cases, with even ordinary care and the use of brains, fractures of the thigh could be cured without deformity and with no perceptible shortening.

DR. CLARK could not claim such uniform results as referred to by Dr. Sayre; but he nevertheless believed in the brain plan of treatment.

Some discussion of a very desultory character here followed, which ended in the motion of withdrawal being carried.

A STATE MEDICAL REGISTER.

DR. BIBBINS, on behalf of the Medico-Historical Society of New York, called the attention of the members to the plan of the New York Medical Register, and suggested the feasibility of extending the usefulness of the work as a register for the whole State. To that end he suggested the propriety of the secretary of each county medical society sending a list of the members of the respective associations to the editor of the work.

DR. J. V. KENDALL then offered the following resolution, which, after some discussion on the part of DRS. SAYRE, GOVAN, ELIOT, and others, were unanimously adopted:—

Resolved, That each county medical society in this State be requested to send, on or before the 1st of March of each year, a list of the names of the officers and other members of said county society, and their post-office addresses, to the editor of the Medical Register, Dr. E. Lee Jones, 12 W. 35th street, or his successor in office, for publication in the aforesaid Register.

Resolved, That the Secretary of this Society be directed to send immediately a copy of the above resolution to the secretary of each county medical society in this State.

A communication was read by the Secretary from the Vermont Medical Society, after which DR. GARRISH made some remarks upon the advantages of the hot douche to the os, for the purpose of inducing premature labor in cases of deformed pelvis.

DR. ARNOLD moved that when the Society adjourn, the hour be fixed at eight P.M., to hear the President's address in the Assembly Chamber. Carried.

HERMAPHRODITISM—A FALSE PENIS FOR THE PERFORMANCE OF MATRIMONIAL RITES.

DR. JOHN P. GRAY, of Utica, presented the history of a case of hypospadias in the person of a patient of his asylum, which embodied many points of interest. The individual was a native of Germany, and had always been considered as a female—wearing the usual apparel of the sex, and in every respect conforming to the requirements of such a supposed condition. When nineteen years of age two bodies descended below the pubes, one on either side, which were afterwards proved to be *bonâ fide* testicles. At the time, however, the patient and family believed them to be hernial protrusions. The hair had grown long, and the general shape of the body was that of a female. Occupied as a cook, he became associated with a young Dutch girl who was the assistant. They remained together for a period of three years; and when the patient became impressed with the possibility that a separation might occur, the attachment on his part, which previously had been more or less latent, ripened into love. In sheer desperation, feeling that life would be unendurable without her, he made a declaration in due form, and avowed himself a man, giving as an excuse for appearing in woman's attire that while at sea he had been engaged in a mutiny, which, for the sake of his life, rendered the deception imperative. Shortly after this he visited his brother in a northern county, where the proposed transformation was accomplished by cutting off the hair and changing the dress for coat and pants.

Shortly after, he was married, and becoming in the course of time the subject of delusions, he was sent to the State Asylum at Utica, when his malformation and the curious history connected with it became known. He was five feet nine inches high, weighed one hundred and ninety-five pounds, and except that the mammæ were not fully developed, he appeared like a well-proportioned female. The mons veneris was unusually prominent, and plentifully covered with hair. In place of a penis was a rudimentary affair resembling a very large clitoris, covered with the preputial hood, the edges of which were continuous below with a rudimentary labia minora. There was a scrotum divided into two distinct apartments, each containing a testicle with cord and epididymis, the circumference of the left organ being five and a half inches, and the circumference of the right, three and a half inches. In the cleft separating the two scrotal sacs was the rudimentary penis above, from which was extended downwards a raphe lined with a mucous membrane, terminating an opening of one and three-quarter inches and two and a half inches in depth, resembling a rudimentary vagina. There was no aperture in the penis, but the orifice of the urethra was in the vagina, one and a half inches from the orifice. The patient had a slightly developed mustache.

When he determined to get married, being of a very ingenious turn of mind and fully appreciating his physical defect, he resolved to imitate nature and construct a penis for himself. When engaged in the invention, he had seized every opportunity to study the conformation of the organ. Besides this, after he had donned the male attire he had increased facilities, and made the best of them, and by studying different models, he finally made up his mind as to the shape, dimensions and general appearance of the organ, and succeeded in constructing a remarkably unique apparatus.

As presented to the Society it consisted of a body formed of cotton, six inches in length, having the shape of the penis, minus a prepuce, and sheathed in a piece of pig's gut, the whole having a slight vermilion

color. To the feel it was rather elastic, and its shape was maintained by a piece of gutta-percha tubing, around which the cotton was firmly wound. At the root of the penis was a circular frame work of thick wire, with small square branches on either side for the purpose of attaching straps. The upper edge of the root of the penis was fastened to the upper portion of the ring by a strap which was long enough to reach to a waistband. The side straps were buckled on either side around the gluteal regions in the flexures of the groins, and by that means the apparatus was held in firm position. The central and upper strap was so arranged in the ring, that by a little jerk the penis could be instantly thrown in an erect position, and could be so maintained by buttoning it up higher. Besides this he had constructed a flesh-colored covering which completely concealed the straps. By means of this contrivance he was enabled to deceive his wife as to his virile power, according to her statement, for fifteen months, and the trick was only accidentally discovered as she was undressing him, while he was in a helpless state of intoxication. He told her when they were first married that it was very indecent for a husband to undress in the presence of his wife, and that it was customary for her to retire first and blow out the light. This habit gave him ample opportunities for arranging his apparatus in an erect position before retiring. Partly from fear that his virile power would be questioned, and partly from ignorance, the time of actual coitus would not unfrequently approach an hour. When the discovery was made the wife hid the instrument, and the patient subsequently attempted coitus by contact, but, as is affirmed, with very unsatisfactory results, although both parties had an incomplete orgasm. It is evident also that the sufferer had sexual instincts, inasmuch as a love for the girl had been engendered, which was, after the discovery of his deception, turned to poignant jealousy. The patient is at present a victim of exalted delusions, and the wife has applied for a divorce.

Dr. Moore, of Rochester, made some interesting remarks upon the different recognized forms of so-called hermaphroditism, after which the Society adjourned to meet in the Assembly Chamber at 8 P. M. to listen to the President's address.

Second Day—Evening Session.

The Society met pursuant to adjournment in the Assembly Chamber, when the President, Prof. James P. White, of Buffalo, delivered the annual address. It treated of the progress made of late years in all departments of the healing art, and was listened to by a very large and deservedly appreciative audience. After the usual vote of thanks, the members repaired to the Executive Mansion, where they were elegantly entertained by his Excellency the Governor.

Third Day—Morning Session.

The Society was called to order by Dr. J. P. White, and was opened with prayer by the Rev. Dr. Peck, after which the minutes of the preceding day were read and approved.

Dr. John P. Gray presented a case of cancer of the bladder, vagina, and uterus. A point of interest in the case was that the urethra, notwithstanding the proximity of the disease, was unaffected.

Dr. Orton, Chairman of Committee on Ethics, offered the following report, which was accepted:—

The Committee on Medical Ethics, to whom have been referred several cases of grievance regarding irregularities in past election of delegates to eligibility for permanent membership, would respectfully and with much pleasure report that all disaffections have been satisfactorily removed.

The Committee, however, cannot refrain from an evident duty, to suggest and urge the adoption by the Society of the following resolution, in order to prevent future injustice to members, and cause for complaint:

Resolved, That the Committee of Nomination shall hereafter be required to select for presentation to the Society for permanent membership only the names of those previously made eligible, who shall have manifested an interest in this Society by a continued attendance upon its meetings after the expiration of their term of service as delegates.

Respectfully submitted,

J. G. Orton,
Francis Burdick,

On President's Address.

Dr. Gray, of Utica, made the following report:—

The Committee on the President's Inaugural Address beg leave to report as follows:

It appears to the Committee from the statement of the President, that the standard of admission to and the requirements for graduation at our medical colleges is still too low. The subject is deserving the serious attention of the Society, as upon it depends not alone the welfare of the patient, but also the advance of medical science, and the consideration in which the medical profession will be held by the community. It seems, therefore, desirable that this Society should in some way decidedly express its views upon the subject, and obtain, if possible, harmony of action regarding the matter in the different medical colleges of the State.

The time has now arrived when, as the President wisely suggests, every medical school—as is now done in certain medical institutions in Europe—should also embrace in its curriculum of study both didactic teaching and clinical instruction in all cerebral and nervous disorders, insanity included.

The theoretical objection that might be urged to clinical wards for lunatics, that it would have an unfavorable effect on the patients, is happily controverted by facts. Thus Giesinger, of Berlin, after some years of experience, says in substance that no evil results were observed, and in some instances even positive benefit was derived.

The Committee, feeling deeply the importance of the subject, would recommend the passage of the following resolution:

Resolved, That this Society desire to express a strong opinion of the necessity of making didactic teaching and clinical instruction in insanity and all other cerebral and nervous diseases obligatory as a part of the curriculum of study in our medical colleges, and that the secretary send a copy of this resolution to the faculty of each medical college of the State.

The Committee would respectfully suggest that a committee of three be appointed by the President, who shall meet the Committee of the American Medical Association, "on reprinting the Latin and English portions of the provisional nomenclature of the Royal College of Physicians of London;" so that if such Committee shall agree upon a nomenclature for the United States, the Committee of this Society should, as the President suggests, "publish it immediately, and distribute it throughout the State, through the agency of the county societies."

The Committee commend the suggestion of the President, and recommend

That increased facilities be obtained by legal enactments for furnishing to medical colleges material for anatomical and pathological study; and would suggest that a committee of three be appointed by the President to confer with the Legislature on that subject.

The Committee would also recommend that the address of Dr. James L. Babcock, President of the Albany Co. Med. Soc., on the Life and Services of the late Dr. Alden March, be published in the Transactions of the Society, as a tribute of respect to the memory of that distinguished man; and that the President appoint suitable persons to prepare memorials for the Transactions of the other eminent members of this Society deceased during the past year.

All of which is respectfully submitted.

JOHN P. GRAY,
JOS. C. HUTCHISON,
CHAS. H. PORTER.

The following committees were announced:

Legislative Committee—Drs. La Moree, Lewis A. Sayre, J. R. Boulware.

On Nomenclature—Drs. Austin Flint, Ellsworth Eliot, A. Underhill.

On Necrology—James Hadley, by George Hadley; A. H. Stevens, by A. C. Post; A. Thompson, by F. Hyde; M. Post, by Dr. G. S. Winston; Thomas Cock, by Dr. Buck.

BIRTH, REGISTRATION, AND MARRIAGES.

DR. LANSING offered the following:—

The Committee appointed by this Society in 1867 to present to the Legislature of this State the action of the Society in regard to the importance of having enacted an efficient law for the registration of births, deaths, and marriages in this State, and to aid in procuring the passage of such a law, respectfully report:

That a draft of such a bill was prepared and introduced in the Senate in the session of 1868, partly perfected in committee, but failed through the opposition of the Chairman of the Judiciary Committee to pass either the Senate or Assembly.

Your Committee further report that a copy of the same bill, with some amendments, was introduced in the Assembly during the session of 1869, but, through want of interest or pressure of other business, it likewise failed to pass the Assembly.

Your Committee would respectfully recommend that this Society renew the resolution passed by it in 1867, reciting the great need and high importance of having enacted in this State an efficient law for the registration of births, deaths, and marriages, and also calling renewed attention to this subject on the part of the profession, and urging that they endeavor by all proper means, through county medical societies and otherwise, to enlighten the public and legislative mind on the subject, so that it may eventually express itself by suitable legislative action upon the same.

JOHN V. LANSING,
J. S. MOSHER.

FEB. 3, 1870.

The following communication was read by Dr. Bailey, and referred to Committee on President's Address:

UNIVERSITY OF THE STATE OF NEW YORK,
OFFICE OF THE REGENTS,
ALBANY, Feb. 2, 1870.

To the President of the State Medical Society (now in session):—

SIR—At the recent annual meeting of the Regents of the University, the condition of education in the medical colleges of the State was informally discussed. Although no action was had by the Board in regard to the matter, we are sure that we express the views of the Regents when we say that if, in the opinion of your Society, it is desirable to adopt any measures which look to the advancement and elevation of the cause of medical education in the State, and consequently to a higher appreciation of the degrees conferred by our medical colleges, the Regents will heartily co-operate in any way within the limits of their authority.

We remain yours with regard,
JOHN V. L. PRUYN,
Chancellor of the University.

S. B. WOOLWORTH,
Secretary.

REPORT OF NOMINATING COMMITTEE.

The Committee on Nominations unanimously submitted to the Society the following report:—

For President,
DR. S. O. VANDERPOEL, Albany.

For Vice-President,
DR. GILSON A. DAYTON, Mexico, Oswego Co.

For Secretary.
DR. WM. H. BAILEY, Albany.

For Treasurer,
DR. JOHN V. LANSING, Albany.

For Censors.—Southern District.—Drs. Edward R. Squibb, Brooklyn; Samuel T. Hubbard, New York; N. C. Heusted, New York. Eastern District.—Drs. B. P. Staats, Albany; P. McNaughton, Albany; Nelson Fanning, Catskill. Middle District.—Drs. M. M. Bagg, Utica; C. B. Coventry, Utica; Charles G. Bacon, Fulton, Oswego co. Western District.—Drs. Sanford Eastman, Buffalo; C. C. Wyckoff, Buffalo; Edward Hall, Auburn.

For Committee on Correspondence.—1st district, Dr. George F. Shrady, New York; 2d district, Abraham Crispell, Rondout; 3d district, Henry B. Whiton, Troy; 4th district, R. L. Allen, Saratoga; 5th district, W. T. Bassett, Mount Vision, Otsego; 6th district, John G. Orton, Binghamton; 7th district, H. N. Eastman, Geneva; 8th district, Julius F. Miner, Buffalo.

For Permanent Members.—1st district, Drs. Ellsworth Eliot, New York; Henry D. Noyes, New York. 2d district, Drs. George F. Shrady, New York; James O. Van Hoevenburgh, Kingston. 3d district, Drs. Wm. Lamont, Charlotteville; James L. Babcock, Albany. 4th district, Drs. Francis Burdick, Fulton; Wm. H. Craig, Albany. 5th district, Drs. Robert Frazier, Camden; Jacob S. Mosher, Albany. 6th district, Drs. S. H. French, Lisle; J. W. Thompson, Watkins. 7th district, Drs. H. C. Hendricks, McGrawville; Wm. S. Hoffman, Port Byron. 8th district, Drs. Thos. F. Rochester, Buffalo; E. M. Moore, Rochester.

Eligible for Permanent Membership.—1st district, Drs. Gurdon Buck, New York; Horace P. Farnham, New York; Wm. C. Otterson, Kings co.; Alexander Hutchings, Kings co.; John S. Young, Kings co. 2d district, Drs. Wm. H. Helm, Sing Sing; Levi Lounsberry, Stone Ridge; John Wales, Rondout; A. C. Hull, Olive; James L. La Moree, Grahamsville; A. T. Douglass, Rondout; R. Loughran, Kingston. 3d district, Drs. Edward R. Hun, Albany; R. Halstead Ward, Troy; A. A. Edmeston, Albany; Le Roy McLean, Troy; George H. Hubbard, Lansingburg; Joseph Lewi, Albany; Peter S. Pruyn, Kinderhook. 4th district, Drs. B. F. Sherman, Ogdensburg; David G. Dodge, Rouse's Point; D. W. Jones, Franklin co.; E. H. Bridges, Ogdensburg; Edward S. Watson, Ilion. 5th district, Drs. Edwin Hutchinson, Utica; Wm. L. Baldwin, Utica; Wm. H. Rice, Phœnix; Geo. W. Cooke, Otego; Horace Lathrop, Cooperstown. 6th district, Drs. Joshua B. Graves, Corning; Samuel Ensign, Bath; Carlton R. Heaton, Newark Valley; Wm. H. Beardsley, Coventry. 7th district, Drs. Charles G. Pomeroy, Newark; E. W. Simmons, Canandaigua; C. C. Murphy, East Bloomfield; Nathan R. Tefft, Onondaga Hill; Geo.

W. Earll, Skaneateles; Wm. Vosburgh, Lyons. 8th district, Drs. Geo. Abbott, White's Corners; M. W. Townsend, Bergen.

Honorary Members.—Drs. Henry S. West, Asia Minor; Ralph Isham, Chicago; Joseph Carsen, Philadelphia; William Henry Thoger, Keene. N.H.; William Warren Greene, Portland, Maine; H. M. Knight, Lakeville, Conn.

Eligible for Election for Honorary Members.—Drs. Edwin M. Snow, Providence, R. I.; William H. Byford, Chicago, Ill.; Wilmer Worthington, West Chester, Pa.

For the Honorary Degree of Doctor of Medicine.—Drs. E. S. Lyman, Sherburne; Tobias J. Green, Parish.

Delegates to National and Quarantine Conventions.—Drs. Elisha Harris, New York; John H. Griscom, New York; Stephen Smith, New York; Jephtha R. Boulware, Albany; A. N. Bell, Brooklyn; John Ordronaux, Roslyn; James P. White, Buffalo; Jacob S. Mosher, Albany; Edward R. Peaslee, New York.

Delegates to Connecticut State Medical Society.—Drs. Francis Burdick, Johnstown; John P. Garrish, New York; Seth Shore, Katonah; H. H. Chubbuck, Elmira; R. B. Bontecou, Troy; Robert Newman, New York.

Delegates to the Massachusetts Medical Society.—Drs. Henry D. Didama, Syracuse; James S. Bailey, Albany; Hiram Corliss, Washington co.; Joseph Bates, Lebanon; Henry B. Whiton, Troy.

Delegates to New Jersey Medical Society.—Drs. E. R. Squibb, Brooklyn; John P. Gray, Utica; Joseph C. Hutchison, Brooklyn; J. L. La Moree, Sullivan co.; Abraham Cuspell, Rondout; R. Halstead Ward, Troy.

Delegates to New Hampshire Medical Society.—Drs. J. V. P. Quackenbush, Albany; George H. Hubbard, Troy; Mellen R. Holbrook, Poughkeepsie; E. R. Peaslee, New York; J. V. Kendall, Baldwinsville.

Delegates to Vermont Medical Society.—Drs. B. F. Sherman, Ogdensburg; Daniel G. Dodge, Rouse's Point; Samuel Shumway, Whitehall; N. H. Ballou, Mechanicsville, Saratoga co.; Arthur S. Wolff, Plattsburg; William Seymour, Troy.

Delegates to Pennsylvania Medical Society.—Drs. Wm. C. Wey, Elmira; R. Cresson Stiles, Brooklyn; James B. Murdoch, Oswego; John G. Orton, Binghamton.

Delegates to Ohio Medical Society.—Drs. Geo. W. Bradford, Homer; C. C. F. Gay, Buffalo; Charles E. Rider, Rochester; T. H. Squire, Elmira.

Delegates to Maine Medical Society.—Drs. Samuel Hart, Brooklyn; Wm. H. Bailey, Albany; J. H. Cobb, Rome.

Delegates to Rhode Island Medical Society.—Drs. Gurdon Buck, New York; R. L. Allen, Saratoga.

Delegates to Illinois Medical Society.—Drs. O. M. Allaben, Margaretville; Peter P. Staats, Albany; Ferris Jacobs, Delhi; Henry W. Drew, Rochester.

Delegates to American Medical Association.—Drs. Nathan Bozeman, New York; Fred'k Hyde, Cortland; Wm. Govan, Stony Point; Marcus M. Wood; Edward R. Hun, Albany; C. C. Wyckoff, Buffalo; E. S. F. Arnold, Yonkers; Caleb Green, Homer; Joseph C. Hutchison, Brooklyn; Geo. F. Shrady, New York; J. H. H. Burge, Brooklyn; Wm. Manlius Smith, Manlius; E. M. Moore, Rochester; James H. Armsby, Albany; John P. Gray, Utica; Lewis A. Sayre, New York; Wm. M. Chamberlain, New York; Wm. C. Wey, Elmira; A. L. Saunders, Brookfield; N. C. Heusted, New York; Ferris Jacobs, Delhi.

Committee on Statistics.—1st district, Dr. Wm. F. Thoms; 2d district, George J. Fisher; 3d district, C. H. Porter; 4th district, Alexander M. Vedder; 5th district, A. L. Saunders; 6th district, John G. Orton; 7th district, Nelson Nivison; 8th district, L. B. Coates.

Committee on Prize Essays.—Drs. Thomas F. Rochester, Buffalo; Sanford Eastman, Buffalo; Henry W. Dean, Rochester.

Committee on Publications.—Drs. Thomas Hun, J. V. P. Quackenbush, William H. Bailey.

Committee on By-Laws.—Drs. Oliver White, Thomas Hun, William H. Bailey.

Respectfully submitted,

J. V. P. Quackenbush, Chairman.

W. C. Wey, Secretary.

After the transaction of business of minor importance, the Society adjourned to meet the first Tuesday in February, 1871.

Progress of Medical Science.

The New Alkaloid, Muscarin.—A remarkable essay has just been published by MM. Schmiedeberg and Koppe on Muscarin, the poisonous alkaloid of a certain fungus called the Agaricus muscarius, or Amanita muscaria, the properties of which have long been known in connection with the curious but not very pleasant story told by Pereira, on the authority of Langsdorf, of its use for the purpose of producing intoxication amongst the Russian peasants. The alkaloid was obtained, as we learn from an abstract contained in the *Centralblatt*, principally from the specimens of this species growing around Dorpat, though it seems probable that it is not limited to this species alone. As regards its physiological properties, they appear closely to resemble those of the Calabar bean, and, like this, to be antagonistic to atropine. It acts with remarkable energy on cats, a very small quantity injected subcutaneously producing an abundant flow of saliva and of tears, vomiting, diminution of the frequency of the pulse, and such extraordinary contraction of the pupil that this only appeared as a narrow black slit. Subsequently dyspnœa and debility of the muscular energy supervened, amounting at length to paralysis. Before death the pupil became widely dilated; and the fatal issue resulted from arrest of the respiration, the heart continuing for some time to contract feebly. Larger doses were required to kill dogs and rabbits; and no contraction of the pupil occurred in the latter.

In animals poisoned with muscarin, the blood-pressure sinks almost immediately to one-third of its normal amount. To this primary and principal depression a period succeeds during which it slightly rises again. The prodigious fall in the first instance is probably due, not simply to retardation of the pulse, but to a sudden loss of tone in the vessels—a loss which is rendered evident in rabbits by dilatation of the vessels of the ears. After the injection of atropine, the blood-pressure recovers itself again, and considerably exceeds the normal amount; probably on account of the complete abolition of the influence of the pneumogastrics. The action of muscarin is very energetic on the abdominal organs; and here, again, resembles that of the Calabar bean, the intestines, bladder, and even the spleen, becoming as it were tetanically contracted. The intestines first become converted into a hard, white cord, and then, becoming somewhat relaxed, exhibit vigorous but irregular peristaltic movements. The effect does not occur if by compression of the aorta the adit of blood to the intestines is prevented. Here, also, atropine presented distinctly its antagonistic action. The sialogogue influence of muscarin was always that which was first exhibited, and in all animals alike, whatever their sensitiveness to the poison might otherwise be. The effect on the pupil appears to be but slow in man, and to produce it a considerable dose is required.—*Lancet.*

On the Quantitative Determination of Uric Acid in Urine.—The Rev. V. Harcourt, in a paper on the solvent treatment of uric acid, states that the usual methods of estimating this acid are not reliable, and gives the following:—A fourth of the urine of twenty-four hours is evaporated to three fluid ounces; it is treated with a mixture of hydrochloric acid and alcohol in equal parts, each being 2·5 per cent. of the urine employed. It is allowed to stand forty-eight hours, drained on a small filter washed with alcohol (methylated spirit), and then with equal parts of acetic acid and water. The coloring matter and phosphates, &c., are thus removed, and the uric acid is of a light color, and perfectly, though confusedly, crystalline.

The advantages of this method over those heretofore in use are shown in the experiment which follows:—In urine having an acidity of 5 grains per pint, the nitric acid method of Dr. Thudichum gave 1·16 grains of impure uric acid. The ordinary hydrochloric acid method gave 5·53 grains; the method above described gave 9·9 grains of uric acid.

Secretory Nerve of the Parotid Gland.—Professor Eckhard, in his recently published essays, gives a long paper upon the secretory nerves of the parotid, and by a process of exclusion, as well as by direct experiment, he has satisfied himself that the secretory nerve of the parotid gland in dogs is the tympanic branch of the glosso-pharyngeal.

The Non-Degeneration of Vaccine Virus.—At a late meeting of the Académie de Médecine, M. Guichard brought forward the subject of the degeneration of vaccine virus. As he had most extensive opportunities during a very long practice in a populous district, he stated positively that he had vaccinated 15,000 cases, and his father, to whom he succeeded, had vaccinated largely, the sum-total being 21,000 cases. He does not give any credence to the theory of degeneration of the virus, which has been lately so much discussed, but believes it as efficacious as ever; but, at the same time, he counsels that the option of human or animal vaccine should be given when practicable.—*Med. Press and Circular.*

Treatment of Pneumonia.—Dr. A. T. H. Waters, of Liverpool, publishes in the *Lancet* the results of treatment in 53 consecutive cases of acute pneumonia treated by him in the Liverpool Northern Hospital, and accompanied by a tabular statement presenting the leading features of each case.

Of the age of the patients.—Under ten years, 1 case; between ten and twenty years, 7 cases; between twenty and thirty years, 25 cases; between thirty and forty years, 12 cases; between forty and fifty years, 7 cases; between fifty and sixty years, 1 case. All the patients were males except two. A large proportion of them were sailors. Many were strong, robust-looking men, whose previous health had been good, and in whom the disease had existed for a few days only before admission into the hospital.

The disease was single in 44 cases, involving from one-half to the whole of the lung; it was double in 9 cases. Of the single cases, the right lung was attacked in 20, the left in 24. Of the double cases, the left lung was most involved in 6, the right in 1. Both lungs were equally involved—viz., one-half—in 2 cases.

Of the treatment.—Venesection was not practised in any case. Only 3 cases were cupped; and only 2 had leeches applied. Whenever antimony was given, it was in small doses—from one-twelfth to one-fourth of a grain—except in two instances, in which it was given in doses of three-quarters of a grain and a grain. In 33 cases—a large majority of the whole—no antimony was given. In a large proportion of the cases some alcoholic stimulant was given early in the disease. In 30 cases alcoholic stimulants formed the main therapeutic agent; and in some of the most severe cases no other medicine was given. In 6 of the remaining cases stimulants were given after a few days' treatment by other means. The stimulants were given at regular intervals, frequently with food, beef-tea, or milk. In the instances marked by a very rapid pulse and great dyspnœa, brandy was given every hour, or every hour and a half. Mercury—calomel with opium—was not given in any case. In one case blue-pill was given twice a day for six days; but no soreness of the gums was produced. In no other instance was mercury given, except as a purgative in combination with some other drug. In every case nutrients were allowed freely—viz., beef-tea and milk from the commencement of treatment, and solid food as soon as the patient could take it.

Of the results.—Of the 53 cases, 1 died. In this case, after convalescence had apparently set in, and the pulse had fallen to 80, effusion into the pleura took place somewhat suddenly and to a large extent, and death soon followed.

The average duration of the 52 cases that recovered, *from the commencement of treatment to the period of convalescence*—namely, when all active symptoms had subsided, when the pulse had fallen to a natural or nearly natural standard, and when the patient could take solid food—was $8\frac{1}{6}$ days.

The date of the commencement of the attack was clearly ascertained in 41 cases. The average duration of these, *from the onset of disease to the time of convalescence*, was $11\frac{1}{2}$ days.

The Oxalate of Cerium in Dyspeptic Vomiting.—Dr. S. A. Lucas, of Edinburgh (*Med. Press & Circ.*), had a case of dyspeptic vomiting, where the *tonic* and *sedative* effects of oxalate of cerium were well marked. A married lady, suffering from severe vomiting several times daily for two months previously, as well as facial neuralgia, applied for treatment. A liniment composed of equal parts of lin. chloroformi and lin. belladonnæ, was applied to the face, and put her at once upon—℞. Cerii oxal. gr. xxxvj, Ext. hyos. gr. xxiv. Div. in pil xij.; cap. j. ter in die. For two days afterward she had no vomiting; on the 3d day she vomited once, due to violation of the restricted diet. She was made to take a short walk every day, and by the end of the week vomiting and neuralgia had disappeared, and her health rapidly returned.

Verneuil's Treatment of Complicated Fractures.—The following is Verneuil's treatment of complicated fractures:—The wound is covered with gold-beater's-skin and collodion, which secure perfect occlusion, while there is no interference with the starch bandage, or whatever the surgeon may choose to apply. This application can be left *in situ* until the complete consolidation of the bone, or be removed every four or six days for the cleaning of the wound.—(Dr. H. H. Good, in a letter from Paris to *Richmond and Louisville Medical Journal.*)

Morphia Subcutaneously in Dyspepsia.—Dr. T. Clifford Allbutt (*Practitioner*) calls the attention of the profession to the efficacy of morphia when used subcutaneously. He instances several cases where the effects were most happy, and resulted in the entire recovery of the patients.

Heated Wines.—The cautious heating of wine, before reaching maturity, not only improves its quality, but

has the effect of making it keep better, and renders it fit for transport on long journeys.

Calorific Rays in Artificial Light.—According to the German chemist Landsberg, artificial light contains ninety per cent. of calorific rays, while sunlight contains only fifty. The disagreeable sensation produced upon the eyes by artificial light is attributed to the number of these rays. The light is rendered less injurious and more agreeable by passing it through alum or mica.

Glycerine as a Substitute for Spirits of Wine in the Preservation of Zoological and Anatomical Preparations.—Dr. Koller (*Chemical News*) recommends concentrated glycerine as being cheaper, not liable to evaporation, not combustible, and, moreover, as better preserving the natural color of various preparations usually kept and preserved in spirits of wine.

The Source of Chloride of Sodium Found in Water.—The common salt which comes down our streams comes from the wear and tear both of animals and vegetables in the process of living.—*Chemical News.*

A Case of Dislocation of both Bones of the Forearm Forwards.—It was stated by Petit that a dislocation of both bones of the forearm forwards could not take place without an accompanying fracture of the olecranon process of the ulna; and this assertion has been repeated by many authors of works on surgery.

Malgaigne has recently collected six well-authenticated cases of this dislocation without fracture.

On the 10th of December Dr. Forbes, of Philadelphia, was called to see a boy about twelve years old, who had fallen and dislocated both bones of the right forearm forwards, while exercising himself in a gymnasium. The olecranon was discovered lodged distinctly in front of the humerus, and above the lower margin of the trochlea. The dislocation was complete. Reduction was readily effected by flexing the forearm on the arm, so as to disengage the posterior and upper margin of the olecranon from its position in front of the humerus; and while holding the arm firmly, both radius and ulna, being still strongly flexed, were brought downwards and backwards.

Boyer, Velpeau, and Malgaigne have each recorded a case of this dislocation with fracture of the olecranon.—*Am. Jour. Med. Sciences.*

Remedy for Toothache.—A writer in the *Missouri Dental Journal* recommends the following formula:

℞. Ether. sulph., chlorof., āā gtt. xxx.; tinct. camph. ʒ i.; tinct. opii, ʒ ij.; alcohol, ʒ ss. M. Apply on cotton.

Chromic Acid in Menorrhagia and Leucorrhœa.—David Wooster, M.D., of San Francisco, Cal. (*Am. Jour. Med. Sciences*), treats menorrhagia and uterine leucorrhœa with chromic acid with success. He uses the chromic acid in leucorrhœa in the strength of 15 grs. to a drachm of hot water, having first dilated the cervix with a sponge-tent. One injection is generally sufficient, when the general health is not seriously impaired. The injections in any event should not be repeated in less than four or five days; unless the cervix be well dilated before the injection, the most alarming collapse may supervene in a few moments. If labor-pains and tendency to collapse should supervene from the carelessness of physician or patient, hot fomentations to abdomen, lavender and ammonia or brandy internally, with absolute rest in bed, will afford prompt and permanent relief.

Treatment of Variolous Disease.—Dr. Wm. Pepper, Physician to the Philadelphia Hospital (*Am. Jour. Med. Sciences*), publishes a "Clinical History of 33 Cases of Variolous Disease;" the remedies employed consisted of a febrifuge diuretic mixture, sulphate of cinchona and whiskey, in almost all the cases. The febrifuge mixture was as follows: ℞ Potass. acet. gr. xl.; sp. ætheris nitrisi f ʒ i.; liq. ammoniæ acetatis f ʒ iij.; ft. sol., with the addition, in cases of young children, of a little ginger syrup; of this solution, from a teaspoonful to a tablespoonful was given, according to the age of the child and the degree of fever, from four to eight times daily. The tr. cinchon. comp. was given purely as a general muscular and cardiac tonic.

Culinary Treatment of Animal Food.—Dr. Letheby (*The Druggists' Circ. & Chem. Gazette*) announces in the "Cantor Lectures" that in the culinary treatment of animal food, the objects are fourfold: 1st. To coagulate the albumen and blood of the tissues, so as to render the meat agreeable to the sight. 2d. To develop flavors, and to make the tissue crisp as well as tender, and therefore more easy of mastication and digestion. 3d. To secure a certain temperature, and thus to be a means of conveying warmth to the system. 4th. To kill parasites in the tissues of the meat.

All meat should be kept a little short of decomposition before it is cooked, or even until decomposition has just commenced, as the tissues then become loose and tender, and very digestible.

Nux Vomica in Delirium Tremens.—Dr. Denton records two cases of well-marked delirium tremens successfully treated by five to ten minim doses of tincture of nux vomica, repeated every four hours, after having first used an active cholagogue purgative.—*Practitioner.*

Treatment of Typhoid Fever.—In a late epidemic of typhoid fever in Hunterdon Co., N. J., Dr. C. W. Larison, of Ringoes (*Trans. N. J. Med. Soc.*), states that the course of treatment pursued was, camphor and opium in the proportion of four grains of the former to one of the latter, as an anodyne; acid nitro-muriatic, beef tea, milk punch, &c. Out of about thirty well-marked cases, but one died. This was a young man in his 22d year, weighing 280 pounds, and addicted to an excessive use of alcohol. He is satisfied that, in the early stages of this disease, a free use of the mineral acids is of very great value.

Lean Meat Diet in Rheumatism.—Dr. C. W. Larison's plan of treatment in rheumatism is, to restrict the patient to a diet of lean meat—beef or mutton—or eggs, allowing not a particle of saccharine or amylaceous material to be taken during the whole course of the disease, and to give liberally of potassæ nitr. and opium, using at the same time raw cotton locally, if needed. He has found nothing so advantageous as the lean meat or egg diet. The notion of this plan of treatment was first suggested to him by Dr. Jenny, of Woodville, who remarked that patients suffering with gout and rheumatism were generally great eaters of sugar. On finding that his own patients were almost universally vegetarians, the idea struck him that an excess of saccharine material in the blood, and a deficiency of fibrin and albumen, might give rise to the disease, since rheumatism consists in an inflammation of those tissues which are constructed more largely than any others out of albumen and fibrin; and if these tissues constructed out of albumen and fibrin are inflamed or are undergoing repair, certainly the blood must be supplied with these materials, or the work cannot go on successfully.—*Trans. N. J. Med. Society.*

Eighty-eight Cases of Pneumonia, and Treatment.—Dr. O. G. Selden, Shanesville, Ohio (*The Cin. Lancet & Observer*), presents a generalization of 88 cases of pneumonia, their peculiar features and treatment, which occurred in his vicinity from the 1st Feb., 1869, to the middle of April. Of these, 26 were of the right lung, 46 were of the left, 16 were bilateral, 8 were bronchial pneumonia, and 13 were complicated with pertussis. The disease attacked all ages, from the infant a few weeks old to the aged of threescore and ten, and equally all conditions of life. A majority of cases, however, occurred in children under ten years of age. The disease was ushered in by the usual premonitory chill, followed by fever, headache, and general *malaise*, pain in one or both sides of the chest, usually in the lower lobes of the lungs, and, in the great majority of cases, attended with very troublesome hyperemesis. He has never seen gastric disturbance so generally attending this disease. No case was arrested before passing into the second stage, and the mean duration of the disease was about eight days. Delirium was a very common and marked symptom, sometimes violent, but oftener low and muttering. The type of the attending fever was essentially typhoid.

The treatment pursued was usually to commence by administering a purge composed of calomel, rhubarb, and bicarb. sodæ, it having been observed that the vomited matters were strongly acid. After the operation of the cathartic, he gave, during the stage of engorgement, nauseant doses of tart. ant., or ipecac., with anodynes in the form of Dover's Powder. As the disease advanced, and the parenchymatous structure of the affected part became solidified by effusion, this was changed for bichlor. potass. in free doses, with anodynes as before. The bichlor. potass. was given under the theoretical notion that it supplied the system with oxygen, which the diminished capacity of the respiratory apparatus failed to inhale in sufficient quantity to meet the demands of the animal economy. Veratrum, in the form of Norwood's Tincture, in sufficient doses to control the pulse, was given in all cases that seemed to demand it. Blood-letting, either general or local, was not employed in a single instance. When the typhoid stage became well marked by frequent and irritable pulse, tendency to diarrhœa, low muttering delirium, and hot and dry skin, stimulants and tonics were freely employed. For stimulants, wine and whiskey-punch were given; and as a tonic, quinine with anodynes. A farinaceous diet was recommended in the early stages; and later, such food as furnished mainly nitrogenous principles. Milk and cream, diluted with water, were freely given to children during the whole course of the attack. The topical applications most employed were the cataplasm of mush and mustard. The quantity of mustard was always enough to redden the skin. When this was effected, the poultice was removed, and the whole chest thoroughly rubbed with melted lard, and covered with flannel next to the skin. The treatment was directed toward the general condition of the patient, rather than the removal of the local trouble by any of the theoretical means laid down by authors. The result of this practice was 85 recoveries and 3 deaths. According to the late Dr. Kocter, of Berne, Switzerland, the lowest rate of mortality yet reported is 8.3 per cent., while the ordinary percentage is 20.7. It will be seen that a loss of 3 out of 88 gives a per cent. of a fraction less than 3.53. Since writing the above, Dr. Hughes Bennett read a paper before the London Med. Society on the "restorative" plan of treating pneumonia, and claimed that the mortality of his cases was one in 27 or 30.

Diphtheria.—The following is Dr. Miller's prescription for diphtheria: ℞. Tr. ferri chloridi, ʒ ij.; potassæ chloratis, ʒ ij.; morphiæ muriatis, gr. ij.; acidi muriatici dil., ʒ ij.; aquæ destillatæ, ℥ ij.; syrup, ℥ ij.; M. Sig.: teaspoonful every second or third hour. It is a good local application also.—*Chicago Med. Jour.*

Syphilis Inherited and Transmitted by Nursing.—J. C. Grubbs, M.D. (*Oregon Med. and Surg. Reporter*), reports the subjoined case: While at Red River Landing, Lake Superior, his attention was called to a pretty infected Indian girl, who had given birth to a child in a lonely spot near the Grand Portage, where she was found suffering from disease and starvation. A Jesuit priest sent her to a hospital in Toronto, and the child was given to its grandmother to rear. To quiet the babe, she suffered it to use her breasts, and by this means received the disease herself in its most virulent form, the indurating sore presenting itself on the areola, and producing all its constitutional effects on her system. The child died with syphilis.

A Valuable Local Application to the Uterus.—Dr. C. D. Palmer (*Cin. Med. Repertory*) advocates the solution of *terchloride* of carbon as a beneficial local application to malignant diseases of the uterus. Acting as a decided local anæsthetic, it subdues pain, suspends hemorrhage, and removes fetor.

The Adhesive Strap Bandage after Parturition.—W. M. Ryer, M.D. (*Cal. Med. Gazette*), believes that all cloth bandages applied after parturition are movable, and tend to make pressure when least desired; besides, by their thickness, they heat the spine and parts covered.

The method of bandaging he has practised is to take about three-fourths of a yard of adhesive plaster and cut it in strips one and one-half inches wide, and long enough to extend from three or four inches from the spine on one side, over the abdomen, to within three or four inches of the spine on the other side. The heated plaster is drawn from the back of the hips, at the lower part, where the assistant presses the end against the skin tightly over and above the pubes, and around to the corresponding place on the opposite hip. Each strip is thus applied above the other, until we arrive at the umbilicus, in some cases one inch above. As adhesive plasters slip and stretch, they should be drawn tightly, gathering the looseness and folds of integument under the plaster. In a few hours these folds disappear. A second layer is applied over the first, to give it body and firmness, for the abdomen in its lower part requires a strong support. Thus the inferior portion of the abdomen becomes encased by adhesive plaster, whilst the epigastric region is free; and the relief is often so great, when properly applied, that patients who have lain upon the bed one or two weeks, bandaged with cloth, will, upon the application of this casing of plaster, ask permission to sit up or to leave their beds. Generally, at the end of the third or fourth day itching occurs, but it passes away by removing the bandage and washing the parts with warm water, and immediately renewing the bandage by fresh adhesive straps, as at first.

Management of Pertussis.—John E. Owens, M.D. (*Chicago Med. Journal*), relates a case of pertussis in a child six years old, where atropia sulph. gr. $\frac{1}{150}$, aqua ʒ ij., was given each morning fasting, for five days. This drug had a marked influence, lessening both the number and violence of the paroxysms. Suppression of urine followed, which was relieved by elaterium (Clutterbuck), gr. $\frac{1}{10}$, every two hours. Watery discharges followed, with a pretty free secretion of urine. The excessive dilatation of the pupils, which occurred

a number of times within four days, he thinks proves that the influence exerted by the salt, and possibly by solanaceous plants in general, lasts for some time, and is justified in concluding that, inasmuch as its physiological manifestation could be seen during this time, it was likewise making itself felt upon the neurosis.

TREATMENT OF SCARLATINA.—Dr. Walter Fergus, of Edinburgh, contributes a valuable statistical article on Scarlatina to a recent number of the *Lancet*. He says of the treatment of that disease:

As the malady generally presents itself, few diseases yield to treatment more satisfactorily. The chief point is not to be overmuch afraid of your enemy, and to put a *quasi* faith in the issue of the battle being on the side of recovery. Medicines easily become poisons in this disease; a smart purge or a repeated emetic not unfrequently changes a moderate and regular attack into one of peril, increasing the danger of all the symptoms. Next to a good supply of air and a comfortable bed, *quietness* is of the utmost consequence; a fussy nurse or over-anxious parents turn the scale against the patient with unerring certainty. Everything about a sufferer from scarlatina should be as quiet and as cheerful as it is possible to make it. An emetic of sulphate of zinc and ipecacuanha wine, in the *earliest* stage of the disease, is of use, helping as it generally does reaction; but it should not be repeated with a view of cutting short a disease which *will* run its course. If the patient can be kept alive for from seven to nine days, he will most probably make a good recovery. After the emetic, the patient should be allowed to sleep as much as possible; the more he sleeps on the first two or three days of the attack the better in all probability will be the result. At the end of that time, in most cases all sense of depression or oppression will have passed away, and, quietness being maintained, an uninterrupted recovery ensues. Two remedies have proved almost equally useful: chlorine gas in a sweetened solution is most grateful to the patient, and evidently helps him in his battle; but a better medicine is the liquor of acetate of ammonia with a considerable excess of carbonate of ammonia, with ten minims of spirit of nitric ether in each dose. It should be given in doses repeated with greater frequency in severe cases. Gargles are useful in cooling and relieving the throat: a weak solution of chlorine gas sweetened, or of Condy's fluid, answers well as a gargle. It is a good practice to make a patient gargle before taking food or medicine. Nitrate of silver or strong hydrochloric acid must be used if there is much blocking up of the fauces, or gray patches on their surface. Ice is of immense use where there is either great throat affection or sickness. The pleasantest drink is soda water given freely, with wine added where wine is required.

The disease seems to produce a stretching or distention of every soft fibre and structure of the body. All treatment should be directed to the restoration of tone to the distended and weakened structures; with this view, iron and quinine may be given early in the attack. From the fifth or sixth day six grains of the sulphate of iron, magnesia, and quinine should be given *with* the ammonia draught. This mixture may be continued until convalescence is complete. Towards the end, in many cases, the sulphate of iron, magnesia, and quinine may be given alone in from fifteen to twenty grain doses. In this form iron and quinine rarely disagree with a patient, and aperients are seldom required during its use. The external treatment is of great importance; rapid sponging with vinegar and water is called for if the patient does not sleep, or if there is much irritation of the skin. In cases with extreme development of the rash and burning skin, the cold douche, rapidly given, acts like a charm. The patient, placed in a sponging bath close to the bed, has four or five wash-hand basins of cold water poured in quick succession over him, is quickly rubbed dry, and put to bed, when, if the treatment has done good, he drops off to sleep almost at once. Warm baths early in ordinary cases do harm, nor should they be used until a certain amount of restoration of tone has taken place. Anointing with fatty substances early in the disease is not likely to benefit the patient; it may arrest to a certain extent the diffusion of the separated cuticle. Scrubbing a patient with carbolic soap in a bath ought to be postponed until a very late period of the disease. Before the restorative stage is reached, every exertion on the part of the patient should be avoided. Close stools near to the bed should be provided, and kept always charged with a disinfectant. If a warm bath is given, it should be brought close to the bed, and the patient ought not for any purpose to leave his bedroom till he has recovered his strength and appetite.

In none of the cases treated on the plan indicated has there been a disposition to the formidable sequelæ of scarlatina. In many of the cases albumen appeared in small quantity from the fourth to the sixth day, uniformly disappearing in from three to four days. Albuminuria was more frequent in the cases treated with chlorine gas, which was on that account finally abandoned for the ammonia and tonic treatment.

A well-regulated and sufficient diet, with a change of air, as soon as a removal is prudent, completes the recovery. Occupation, especially mental occupation, must be cautiously resumed. The brain, as much as any other organ, suffers from the stretching process of scarlatina. Early in the disease, books, conversation, light, and loud noises should be avoided. Long after recovery the brain frequently shows signs of slow restoration of power.

ZINC-SULPHO-PHENATE.—The use of zinc-sulpho-phenate was first suggested by Dr. Wood, of England. More recently it has been successfully used in the Berlin Charité, and, to all appearance, will become a valuable and permanent addition to materia medica. The zinc sulpho-phenate combines the disinfectant and therapeutical virtues of phenol (carbolic or phenylic acid) and the astringent action of zinc sulphate; its preference to either, and especially to carbolic acid and the carbolates, depends upon the gradual disengagement of the carbolic acid, and consequently upon its mild and uniform but more continuous action. It is readily soluble in water, glycerine, and diluted alcohol, but very little in strong alcohol, ether, collodium, and chloroform. As a dressing of wounds, or for any application in surgery, and as an injection in gonorrhœa, etc., it is highly recommended, and used in solution of 3 to 5 grains per ounce of water.

Dr. Frederick Hoffmann, chemist (64 Sixth avenue), gives the following formula:—The preparation of this salt is effected by mixing one weight part of sulphuric acid of 1·843 spec. grav. with two parts of crystallized and previously melted phenol. The mixture is digested in the water-bath, at 150° to 180° F., for two days, or until a few drops added to some cold water furnish a clear solution. Then the mixture is diluted with about twice its volume of distilled water, and is gradually added to a corresponding quantity of freshly precipitated barium carbonate, with the precaution that the latter be in a slight excess. The solution of barium sulpho-phenate is filtered and carefully decomposed by a solution of zinc sulphate. Finally, the filtered solu-

tion of zinc sulpho-phenate is evaporated in the water-bath to dryness. The salt is of a reddish tint, and has but a slight smell of phenol. It is readily soluble in water, glycerine, and diluted alcohol, but little in alcohol, ether, and chloroform.

MERCURIAL PLASTER IN HARD CHANCRE.—V. Hebra advocates the subjoined plaster in hard chancre:—

℞ Hydrargyri, ʒ iij.; olei terebinthinæ, ʒ iss.; emplast. diachylon, ʒ xij.; M. ft. Emplastrum.

In hard chancre it is preferable to all other local applications, and can be readily used when spread on linen and wound round the penis.—*Med. News and Library.*

ACUTE ORCHITIS.—Dr. Jordan, of Dublin (*Med. News and Library*), cures acute orchitis in 24 hours by painting the scrotum with a strong solution of nitrate of silver (ʒ ij. to ʒ j.), while a strip of vesication is excited over the adjoining femoral artery by means of linimentum iodi.

COFFEE IN STRANGULATED HERNIA.—Coffee has been used for many years in the West Indies in the treatment of strangulated hernia. In France it was tried for an old hernia which had become strangulated and resisted all the ordinary means of reduction. The patient was made to drink a cup of strong coffee every quarter of an hour. After the fifth a gurgling was felt in the tumor, and the ninth was followed by spontaneous reduction. A similar case is reported as cured by five cups, two by four cups, and others by quantities not stated. By some the result is supposed to be from a congestion of the strangulated gut, by others to contraction of the muscular fibres of the intestine.—*Pacific Med. and Surg. Journal.*

INHALATION OF CARBOLIC ACID IN PHTHISIS.—Dr. Marcet, in the *Practitioner*, advises the spray of carbolic acid and water in the first stage of phthisis. He has derived considerable benefit from it. From one to two grains should be dissolved in an ounce of water. If the solution be stronger the action of the heart is depressed.

PUNCTURE OF THE PERICARDIUM FOR HYDROPS PERICARDII.—The *British Medical Journal* records a case of acute rheumatism where blisters and the alkaline and opiate treatment were tried with no benefit. The pericardium was much distended, with acute pain over the region of the heart. Death seeming imminent, it was determined to try puncture, which was accordingly done, and about three ounces of pale pink fluid were evacuated. Immediate relief was experienced from the dyspnœa, and the patient was enabled to lie down; the respirations fell to 36 per minute, and the pulse to 110. In a little more than three weeks the patient was discharged cured, and was still well able to follow his employment two years after.

THE THERMOMETER IN DISEASE.—Dr. J. G. Thomas (*Galveston Medical Journal*) has used the thermometer with great satisfaction in his investigations of disease, and has found, with every acute disease in which he has made observations, that where the temperature remains the same in the evening that it was in the morning the prognosis is favorable; but where it remains the same in the morning that it was in the evening, the indication is that the patient is or will be worse. In pneumonia, when there is a marked fall in the temperature, we may be sure the disease has reached a crisis, and improvement will begin. This rule holds true with a majority of diseases, but with regard to pneumonia it has been seen hours before improvement could have been guessed at by other means. By the thermometer a diagnosis of this disease has been made long before the crepitant râle made its appearance.

MORPHIA IN OBSTETRIC PRACTICE.—Dr. O. Hendric (*Richmond and Louisville Medical Journal*) has been in the habit of using this agent in his obstetric practice with much success. He uses it hypodermically in painful labors, especially in the dilatory stage, with the view of mitigating the pain. In all cases where the pains were very acute, it has had the effect of rendering them much milder, without materially interrupting the progress of the labor. Morphia is particularly applicable where there is a rigid state of the os uteri, and where there has been an escape of the amniotic fluid. In cases of abortion, where there is a thick and undeveloped os, and the strong retentive fibres of the neck offer great resistance to the passage of the fœtus, it exerts a favorable influence. After-pains rarely occur from its use, and by its use tonic contraction and condensation are promoted, thereby preventing hemorrhage.

GREEN LINE ON THE GUM FROM COPPER POISONING.—Dr. Donald Fraser (*Canada Journal of Dental Sciences*) records a case of poisoning from copper occurring in a sailor just returned from a long voyage. The green line on the gum was analogous to the blue line from lead poisoning, and was distinctly visible, having been received through the medium of lime-juice which had been left in a copper vessel.

POST-MORTEM APPEARANCES FOUND IN A PATIENT HAVING IN LIFE AMNESIA OF WRITTEN LANGUAGE.—Dr. Roberts Bartholow (*Cincinnati Lancet and Observer*) reports the history and post-mortem of a case of amnesia of written language. The lesions were as follows:—The changes of structure were found in the circulatory system. Aorta hard, brittle, and chalky in color, and large calcareous plates could be detached from the serous lining. The semilunar valves and the chordæ tendineæ of the mitral valve had undergone calcareous degeneration, as had also portions of the mitral valves; walls of left ventricle somewhat hypertrophied. The basilar artery, circle of Willis, the middle and anterior cerebral were thick, white, and chalky. All these arteries had varicose dilatations. There was a small amount of serum in the arachnoid spaces, and the convolutions were remarkable for their depth and complexity. No alteration found in the third convolution, in the island of Reil, or neighboring parts; no lesions of central white matter or cortical periphery. The right lateral ventricle contained a small amount of clear serum. The left, distended with fluid, its posterior cornu being much enlarged, occupying most of the posterior lobe, which was hollowed to contain the fluid. A very thin stratum of cerebral matter, consequently, was interposed between the tentorium and this cavity. The serous lining of the left ventricle was opaque—thickened. Attached to the left choroid plexus, and firmly wedged against it in its descent through the middle cornu of the ventricle, was a globular calcareous mass, a half inch in its transverse diameter. This calcareous mass, by its compression of the choroid plexus, interrupted the return of blood from this part of the brain, thus causing the effusion described. A part of the choroid plexus being dragged down, it was evident that the calcareous mass had occupied a different position. The history of the case plausibly indicates that the mass was dislodged, and falling down into the middle cornu, compressed the choroid plexus at a time when the patient, during life, suffered the severe fall and concussion of the brain which was followed by amnesia of written language.

THE MEDICAL RECORD.

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GEORGE F. SHRADY, M.D., EDITOR.

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New York, February 15, 1870.

HE LATE MEETING OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

THE late meeting of the Medical Society of the State of New York, although numerously attended, was not in every respect a very brilliant one. The principal reason for this was a dearth of really good and instructive papers; and many that came up to the required standard of practical excellence were presented at such extreme length, that their main object, to interest and edify the members, was defeated. This custom is growing more and more prevalent, and it is desirable that it should be allowed to wane. When the time of any society is so limited, and when the ordinary business is so great, common courtesy dictates that only such remarks are to be made as are pertinent to the general subject under treatment, and all superfluity of history and other less practical matters should be left for other occasions. We are not to be understood as opposed to exhaustive reports, or to full and elaborate papers, but we do object to these being read *in extenso* in open session. The true benefit which accrues from an attendance upon societies is an opportunity for discussion, and the interests of all concerned are best subserved by presenting only such points as may be new, or upon which an interchange of views can be invited. To accomplish this end, all that is necessary is, the reading of an abstract embodying all the main facts and suggestions, while the paper, as a whole, can take the usual course. All the real objects of the author are thus fulfilled, and much valuable time, which must otherwise be inevitably lost, saved to the Society. Other members will thus be allowed to present their contributions, instead of having the mere titles of the same read by a business committee. A matter-of-fact clergyman once very truthfully affirmed, that he never expected to convert any hearer after the first fifteen minutes of his sermon; and if many of our tedious brethren would recollect the observation oftener, both speaker and listener would be benefited. At the next meeting let us hope that the case will be different, and that we shall have more than one or two exceptional instances to the violation of the now general rule, to which we can refer.

Again, as has been exemplified in more than one instance in the last session, it is becoming the rule for authors and presentors to care more for the impression they may make for good, in the shape of scholarship, skill, and research, than for any interest in science *per se*. In other words, it is getting to be too much the fashion of members to present cases, papers, apparatus, and the like, for the sole sake of advertising themselves, and thus in an indirect way of bidding for consulting practice. This may be all very well in its way, and every physician or surgeon may be deserving of his pains for presenting his cases from an authoritative point of view; but there is such a thing as carrying it too far, and making the object too apparent to create the desired relish on the part of those for whom the food may have been prepared. As an offshoot to this remark we may state our belief that there are many still left who present their views to the Society for mutual benefit, and with the purest and best of motives for advancing the cause of medicine and stimulating others to work in the same fields, to the ultimate end of making some positive additions to our knowledge of disease.

The Society showed a disposition to appreciate the proper spirit in the papers of Prof. E. M. MOORE, of Rochester, and others, and to frown on those in whom the purely selfish element was too apparent to escape recognition. A case in point illustrating the latter principle was afforded the Society in the presentation of a fracture apparatus, the discussion following which finally culminated in a motion to the effect that it be withdrawn. In this individual instance the rebuke may have been, and in charity we hope it was, unmerited; but, nevertheless, the moral which it will carry with it in future cannot fail to have the most salutary effect.

It is pleasant to witness the continued determination of the members to keep, in the matter of medical ethics, the skirts of the Society unstained. Even the various county associations in different parts of the State have been at work in expelling unworthy members, and the result of their labors is promptly appreciated by the parent institution in striking the names of such from the roll. The county societies by this means become the censors of their respective districts, and all who are striving to straddle the line of propriety are very properly declared to be on one side or the other. This spirit, now so general, is an excellent one upon which to found a system of registration of the regular physicians of the State. No better time could have been selected than at the last meeting for presenting the claims of such a procedure, and no better method than that of extending the area of the Medical Register so as to embrace the names of the physicians of the entire State. As might have been anticipated, the proposition of the Medico-Historical Society to publish such a list the forthcoming year, was most cordially,

nay, enthusiastically received. The resolution, as will be seen, provides that each county society shall, through its officers, present to the editor of the said publication the names of all members in good standing. The effect of such a registration in this city and vicinity has been incalculably good, and has done more to draw the line between quackery and regular practice than any law that has ever been enacted. Carried out in accordance with the same plan throughout the State the effect must be proportionably greater upon the profession at large. It is to be hoped that the counties will respond promptly to the call, and countenance by their active support this most beneficent measure. It is not necessary that any respectable medical man should be omitted, if, perchance, he does not belong (as he should, however) to a medical society. All that is needed for him to gain a place on the register is the endorsement of the society of the county in which he resides.

The correct registration of such a large district has, we confess, its difficulties, and it cannot be viewed in prospective in any other light than an experiment; but we are free to confess that obstacles that may arise are happily reduced to a minimum by placing the responsibility upon the shoulders of the respective county societies. If the experiment succeeds—and we cannot see why with the proper spirit it should not—other States may follow the example, until every physician in our country may in time be duly registered. When such a time comes, we shall not need anything from our legislators to protect our rights or those of the community.

There are other matters brought out in the meeting which we will, however, leave for discussion at a future time, and hasten, in conclusion, to express, on behalf of the profession of the State, our congratulations on the wise choice which has been made for President of the Society. Dr. S. Oakley Vanderpoel, of Albany, is a gentleman who is peculiarly entitled to this position, not only by the enviable reputation which he has gained as a medical scholar, but for long and faithful services to the society. Dr. W. H. Bailey had the delicate compliment paid him for previous services as Secretary by a unanimous re-election.

In closing up the present volume we gladly take occasion to thank those of our friends who, during the past year, have so kindly aided us by contributions; but especially are we pleased to acknowledge the valuable services of the following members of our staff:—Drs. Bradford S. Thompson, James B. Hunter, and Norton A. Brockway, of this city, and Dr. J. Solis Cohen, of Philadelphia, for the careful and judicious manner in which they have aided us in the department of Progress of Medical Science, and Dr. John Winslow, for his elaborate, finished, and scholarly reports of societies. Hoping to merit in future the confidence and smiles of our friends, we commence the forthcoming volume with a determination to increase the usefulness of the Journal and make it an invaluable friend to the busy practitioner. With the next volume we shall also have better paper and finer presswork than heretofore, which we doubt not will meet the approbation of our readers.

Reviews and Notices of Books.

I. Transactions of the American Ophthalmological Society. Fourth and Fifth Annual Meetings. June, 1867. July, 1868. pp. 143.

II. Archives of Ophthalmology and Otology. Edited and published simultaneously in English and German. By Prof. H. Knapp, M.D., and Prof. S. Moos, M.D. Vol. I., No. 1. New York: William Wood & Co. pp. 364.

III. A Handy Book of Ophthalmic Surgery. By John Z. Laurence, F.R.C.S., etc., assisted by Robert C. Moon, late Assistant Surgeon to the Ophthalmic Hospital, Southwark. Second Edition. Revised and Enlarged by J. Z. Laurence. Philadelphia: Henry C. Lea, 1869. pp. 227.

IV. Diseases and Injuries of the Eye: Their Medical and Surgical Treatment. By George Lawson, F.R.C.S., Surgeon to the Royal London Ophthalmic Hospital, Moorfields, etc. Philadelphia: Lindsay & Blakiston. pp. 436.

V. Hand-Book of the Diseases of the Eye: Their Pathology and Treatment. By A. Salomons, M.D., Fellow of the Massachusetts Medical Society, formerly Oculist in governmental service at Veenhuizen, Holland. Boston: James Campbell, 1870. pp. 123.

VI. Failure of Sight from Railway and other Injuries of the Spine and Head. Its Nature and Treatment, &c. By Thomas Wharton Jones, F.R.S., F.R.C.S., Professor of Ophthalmic Medicine and Surgery in University College. London: James Walton, 1869. pp. 304.

VII. A Treatise on Intraocular Tumors. From original Clinical Observations and Anatomical Investigation. By H. Knapp, M.D., late Professor of Ophthalmology in Heidelberg. Translated by S. Cole, M.D., of Chicago. New York: William Wood & Co., 61 Walker street. pp. 323.

VIII. Transactions of the American Ophthalmological Society. Sixth Annual Meeting. Also of the American Otological Society. Second Annual Meeting.

The American Ophthalmological Society may be said to have safely passed through the storms of infancy, and to be now a growing child. The present volume of Transactions, though not large, thanks, we suppose, to the discretion of the Publishing Committee, is very creditable to the young society. Among the noticeable papers is Dr. Loring's on Relative Accommodation, in which he endeavors to show that for every degree of nervous influence or increased tension of the ciliary muscle there is a corresponding and contemporary nervous influence, or increased tension of the recti interni, *even if the optical axes* remain fixed. This view, according to Dr. Loring, is a return to the old one, that a definite convergence, physiologically speaking, is necessarily attended with a definite accommodation.

Dr. Williams, of Boston, who is still, we are glad to say, an adherent of that most brilliant of all surgical operations, the extraction of cataract by the flap section, gives the statistics of 44 cases of extraction by this method, with the addition of the corneal suture. "32 recovered sight enough to read ordinary type." We wish Dr. Williams had stated the amount of vision

a little more exactly: "ordinary type" is rather indefinite. Four were followed by capsular cataract, four could walk alone, and in four cases the operation failed.

Dr. Noyes, of New York, in a well-recorded case, calls attention to a form of retinitis in glycosuria. The same author furnishes the statistics of 21 cases of cataract extraction by the so-called modified linear extraction, or Graefe's method. "The number of cases attended by perfect healing and satisfactory sight, without secondary operation, was seven—one eye was lost by an injury—18 cases may be claimed as successes."

We believe that it would have been better for the science of ophthalmology if some of the energy spent in devising modifications of the flap operation for cataract had been expended in some other direction. Many ophthalmic surgeons, to speak plainly, are now in a muddle about the relative merits of the various modifications and sub-modifications of modes and instruments pertaining to the extraction of cataract. We furthermore believe that if any one but *Graefe* had proposed the "peripheric linear" cut, it would have been instantly rejected, or perhaps not even considered. We are aware that to speak thus is arrant heresy; but time will vindicate the truth of these views, or show their incorrectness.

Dr. Williams, of Cincinnati, reports 45 cases of extraction of cataract by Graefe's method; 40 gave good results.

Dr. Loring, in a paper on the insufficiency of the recti interni muscles, claims that the four usual tests for this defect are not exhaustive.

The volume closes with an exhaustive paper, by Dr. John Green, of St. Louis, on tests for astigmatism, which is accompanied by lithographic plates. There is also an analysis of 64 cases of refractive anomalies.

Drs. Knapp and Moos present us with a formidable amount of ophthalmological and otological literature in their Archives. We doubt the expediency of publishing a special journal in America, which must of necessity shoot over the heads of many of those who ought to receive instruction in the two departments here represented. The number of specialists in these branches is certainly not two hundred in the whole land from Maine to Texas, and we fear that others will be discouraged from attempting many of the articles in this valuable journal. The profession ought to be kept abreast with the advances in our knowledge of eye and ear diseases, and we hope they will sustain the projectors' effort; but we fear that the journal will reach those only who have the least need of it.

There are 27 different articles in this first volume, of varying value. Among the more important are Berlin's two cases of Extraction of a Foreign Body from the Vitreous, which is very suggestive for future attempts to save an eye-ball into which a foreign body has entered; the Effect on Refraction by a Dislocated Lens, by Noyes of New York; Embolism of a Branch of the Retinal Artery, by H. Knapp; Williams on Cataract; Knapp on the same subject; Two Fatal Cases of Ear Disease, by Moos; and a Case of Pyæmia from Suppuration of the Cavity of the Tympanum, induced by the use of Weber's (Thudichum's) Nasal Douche, by Rocsa.

However much we may condemn "Handy Books" on medical subjects, as long as the present vicious system of medical instruction in this country continues, such manuals will be largely bought by medical students, and, alas! by practitioners who ought at least, after the hurry of the three years is over, to settle down to solid and earnest reading. Laurence and Moons is one of the best of the handy books of Ophthalmic Surgery. Mr. Laurence has edited this edition expressly for the American publisher, and has added some additional and valuable matter. The author's head rest has been improved by the instrument makers, and a description of the modification given. Mr. Laurence is emphatic in his recommendation of the use of chloroform in eye operations—advice from which we are bound to say we strongly dissent. In the light of the present experience with this agent, we consider that the use of chloroform in an eye operation is subjecting a patient to an unwarrantable risk.

The subject of tumors of the orbit is now more fully treated, a paragraph being added on Exophthalmic Goitre.

Removal of the lachrymal *gland* is recommended in obstinate trouble with the sac and nasal duct, and a full description of the operation given. Mr. Laurence, as is well known, has revived this somewhat questionable operation.

Mr. Laurence speaks cautiously upon the subject of cataract operation, he not being yet fully committed to Graefe's method. He states what seems to be a general experience, that "secondary needle operations on opaque capsule are more frequently necessary after the new operation."

The publishers have added a set of Snellen's text types.

Mr. Lawson is well known to the profession through his valuable book on the Injuries of the Eye, and we are sorry that he has dimmed the reputation of that book by writing this, which certainly was not needed. Of its kind the book is a good one. If it had more illustrations it would be better adapted to its purposes than that of Mr. Laurence, since it is not encumbered by so much material of no great value in a handbook, *i.e.*, details of cases, &c. We are surprised in so recent a work as this to find no full account of the mode of using the ophthalmoscope to determine the refraction of the eye. Our American oculists seem to have worked up this subject, following in the footsteps of Jaeger and Mauthner, better than our English friends. By means of simple adaptations, as suggested by Drs. Loring and Noyes of New York, in different instruments, the examination of the upright image and with it the measurement of the refraction of the eye, has been much facilitated.

In a day when the treatment of ulceration of the cornea seems to be losing some of its proper and rational simplicity, we are glad to see the plain statements about treatment of this evidence of mal-nutrition which are to be found in this book. Injuries to the eye receive, of course, full and excellent treatment at Mr. Lawson's hands. As usual with our English friends in book-making, one author acts as a mutual admirer of the other; hence we find two English books on the eye referred to in the preface, as if they were the only recent authorities, while the existence of an American translation from the German, to which this book is greatly indebted, is ignored.

Dr. Salomon's little book contains the most approved teaching in the main on eye disease, but its scope is too limited to make it a competitor with the two books we have noticed above. It is hardly more than a catalogue of ophthalmic diseases.

Mr. T. Wharton Jones's book properly belongs to the physiologist rather than the ophthalmologist, or, we should say, to the one as well as the other. Indeed, the

author in his preface says that, while the work is a "practical treatise" on the nature and treatment of failure of sight from injury of the spine and head, it is also offered as a treatise on the physiology and pathology of the circulation of the blood in the extreme vessels." We think the title of the book unhappy, since it leads to the idea that we are to have a detailed account of the lesions of the eye after railway injuries. In fact, we have a very few cases, with very meagre accounts of the pathological condition of the eyes. There is much that is valuable in the book, on the capillary circulation, phenomena of inflammation, action of the pupil, effects of atropine and physostigmine, etc.

In the chapter on Embolism, Mr. Jones questions the reported cases of embolism of the central artery of the retina in the following language. After giving the usual description of the appearance of the fundus oculi in supposed cases of embolism, he says:—"In this description *there is nothing pointing to an embolon in the central artery.* The state of the vessels is merely such as would arise from spasmodic constriction of the artery; and such constriction is just what might occur suddenly and determine the failure of sight by stoppage of the afflux of arterial blood to the already morbid retina. For it is to be observed that the whiteness of the disc and swelling and opacity of the retina in the region of the macula lutea could not have been of the same recent occurrence as the sudden failure of sight." Mr. Jones's theory of these cases of so-called embolism of the central artery is, that a deterioration of the optic nerve and retina had been going on for some time, with corresponding impairment of sight, undetected by the patient, when the sudden spasmodic constriction of the artery aggravates the blindness. "If, in any of these cases," continues Mr. Jones, "there was really plugging of that artery, the peccant matter was probably softened puriform fibrin, such as Mr. Gulliver has described in clots of the heart, arteries, and veins, and originally discovered to be a distinct and important elementary form of disease."

This view is somewhat similar to that of Stellwag, on page 665 of his text-book, who believes that it is an inflammation, and usually a retro-ocular neuritis, which by abundant secretion of morbid product, and consequently a contraction of the space, has caused the lessening in the calibre of the vessels. It is, however, contrary to the views of Graefe, Schweigger, Knapp, and others.

We have already noticed Dr. Knapp's monograph as it appeared in the original German. We have nothing to add to that notice, except to say that the translation seems to be well done, and that in the appendix some additional cases have been given. They are, however, unlike the cases forming the body of the work, taken from the reports of other authors. The present monograph is probably the best in our language on glioma of the retina and sarcoma of the choroid. Whether it is entitled to so comprehensive a name as "Intra-ocular Tumors," may be fairly doubted, even if glioma and sarcoma were the only varieties of tumors within the eyeball observed by Dr. Knapp in fifteen years, as he states in his introduction.

The Transactions of the American Ophthalmological Society, at its sixth annual meeting, combined with those of the second meeting of the American Otological Society, have just come into our hands, somewhat earlier than usual, so that we are enabled to include them in this notice.

The little volume is a valuable one. Dr. Knapp contributes a paper on the inaccuracy introduced in the determination of sharpness of vision by disregarding the magnifying or diminishing power of spectacles. He concludes that positive glasses increase the visual power to such an extent that with + 10 No. xx. of Snellen ought to be read at 21.59 feet, with + 5 at 23.44, and so on. Glasses weaker than $\frac{1}{10}$ do not exert a sufficient effect to be considered in this point of view. With − 10, on the contrary, vision may be considered as 1 if xx. Snellen is read at 18.63 feet, with − 5 at 17.44 feet.

Dr. Roosa presents a report, with a beautiful colored plate, of a rare case of vascular tumor of the iris, probably sarcomatous. This case is also reported in the appendix to Knapp's work on intra-ocular tumors. Dr. Loring continues his investigations on relative accommodation. Among the many suggestions in this valuable paper is one that we endeavor to thoroughly neutralize the hypermetropia before operating for convergent squint, and that surgeons have paid too much attention to the condition of the recti interni and the refraction, and too little to the externi and the accommodation.

Drs. Loring and Noyes each present instruments, modifications of the ophthalmoscope, to facilitate examinations of the upright image. Great attention is now being given by ophthalmologists to this subject, and either one of these instruments will be found to be an improvement on the very valuable but clumsy instrument of Jaeger.

Dr. Agnew describes his mode of dressing the eyes after cataract and other grave operations, which consists essentially of a black silk domino. Dr. Agnew lays great stress upon the admission of sunlight to the patient's room, which this dressing enables him to permit. Dr. Agnew remarks, that it remains to be proved that pressure aids the union of wounds in the eyeball. Without defending the use of the so-called laced bandage for the eye, we can but think the packing of the orbit with charpie, so as to make it an even surface, and the subsequent application of a flannel bandage, as better calculated to insure immobility of the lids than the use of plaster and the black silk mask, which simply covers the eyeball without supporting it. The value of a bandage that will give light in the room is, however, unquestionable. We are inclined to think, from Dr. Agnew's experience, that the dread of the entrance of light into a room after operation upon the eyeball has been too great.

The American Otological Society appears before the public with scientific contributions for the first time, although this is the report of its second annual meeting. The transactions give good promise for the future. Dr. Roosa furnishes the report on the progress of otology, which is worth the attention of all general practitioners, as showing the careful study that is now made in aural disease.

Dr. Moreland reports a case of deafness in connection with pregnancy and the puerperal condition.

The case is remarkable in that the deafness, which first came on at a miscarriage, disappeared at each pregnancy to come in again at parturition.

Dr. Knapp reports another case of injury to the ear from the use of Weber's nasal douche (called Thudichum's in England). The attention of the profession should be earnestly called to the dangerousness of this means of treating catarrh, now so much in vogue.

Dr. J. Orme Green, Boston, reports two cases of aspergillus,—the growth of a vegetable fungus in the ear. Dr. Green was the first to intimate that the use of warm water was a sufficient parasiticide, a conclusion which many otologists have since reached.

Such special reports as these deserve a wide circulation.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

ADJOURNED STATED MEETING, JAN'Y 17, 1870.

DR. GEORGE T. ELLIOT, JR., PRESIDENT, in the Chair.

SPINAL IRRITATION.

DR. WM. A. HAMMOND read a very valuable paper upon *Spinal Irritation*, which will appear in the *Psychological Journal* for April, and should be read by every physician. We give in brief some of its chief points:

After alluding to the distrust expressed by several distinguished writers, and shared by a large part of the profession, as to the existence of an independent affection which may properly be called "spinal irritation," the speaker stated emphatically his own conviction that there is such a disorder of the spinal cord, by no means rare or unimportant, and no more to be confounded with hysteria or the various other affections which it may simulate, and to which its symptoms have so often been referred, than with organic disease of the cord. He carefully reviewed the literature of the subject, giving a *résumé* of the more important facts and opinions advanced concerning it, from the introduction of the term by Dr. C. Brown, of Glasgow, in 1828, down to the present time. He then gave his own views, based upon a study of one hundred and twelve cases occurring in his private practice, eighty-three of which had been fully recorded, and twenty-nine less completely.

Symptoms.—(*a*) Centric symptoms: 1. Tenderness at one or more points over the spinal column, increased by pressure. This symptom Dr. H. regards as invariably present, although sometimes developed only by careful examination, and occasionally appearing only several moments after the pressure is applied. Any case which does not exhibit it, he excludes from the category of spinal irritation. Dr. Austin Flint and some others think it may be absent in exceptional cases. The tenderness varies in character from a dull ache, seated in the deeper tissues and developed by strong pressure, to a lancinating pain seated in the skin and subcutaneous areolar tissue, and excited by slight pressure. It varies in degree, from a slight discomfort to a hyperæsthesia rendering the touch of the clothing insufferable. It may be limited in extent to the spot under pressure, or the pain may be propagated along the spinal nerves. The seat of the tenderness is most frequently the dorsal region, but may be the cervical or the lumbar, and it may extend over the whole spine. Each location has its characteristic eccentric symptoms. 2. Pain in the cord. The tenderness above described was external to the vertebral canal. The pain now spoken of is in the cord itself, and therefore cannot be excited (unless in a reflex way, through the former) by pressure on the spinous processes; but it may be excited by percussion, and by motion of the spinal column. The pain is commonly felt near the point of external tenderness, but may be distant from it. It was present in one hundred and nine of Dr. Hammond's cases.

(*b*) Eccentric symptoms. These constitute the most noticeable ones, and vary in accordance with the part of the cord irritated. Among those occurring in Dr. Hammond's cases are the following, under their respective regions: 1. *Cervical irritation:* Vertigo, headache, tinnitus aurium, visual disturbance, sense of frontal constriction; tenderness of scalp; mental aberration (more or less marked, in every case); insomnia or excessive somnolence; neuralgic pains and motor disturbance in parts deriving their nervous supply from the affected region—in scalp and face if this were the upper cervical; in upper part of chest and upper extremities, if it were the lower cervical; nausea and vomiting, but *not* gastric pain. 2. *Dorsal irritation:* Gastralgia (in every case), gastric flatulence, acidity, nausea and vomiting, pyrosis; palpitation, cardiac oppression, syncope; dyspnœa, cough; intercostal neuralgia, inframammary pain (very frequent); motor disorder (spasm or paralysis). 3. *Lumbar irritation:* Neuralgia of lower extremities, and sometimes of back and abdomen; uterine, ovarian, and rectal pain; strangury; tonic spasm of muscles in lower extremities, clonic spasms (occasional in every case), paralysis. The above symptoms are taken from cases where the tenderness was located in but a single region of the spine. In those where it was located in both the cervical and the dorsal region, or both the dorsal and the lumbar, the symptoms presented a combination of those characteristic of each region; and in ten cases where the whole spine was tender, they were quite irregular in their manifestations from time to time.

Causes.—Sex is the strongest predisposing cause, ninety-three of the one hundred and twelve cases being females. Age has its effect—fifty of eighty-three cases being between fifteen and twenty-five years. Hereditary influence was ascertained in some instances. The exciting causes are often impossible to fix. Among those determined in the cases reported are mechanical violence, sexual excesses, mental fatigue and anxiety, innutrition, abuse of alcohol and of opium, exhausting diseases.

Pathology.—The essential pathological condition in this affection, Dr. H. considers to be anæmia of the cord, and he gives *in extenso* his reasons for this opinion. Other writers have attributed the spinal irritation to congestion, inflammation, and many other conditions. That anæmia may cause the irritability, is shown by analogy; and that local anæmias may be produced, is explicable with our present knowledge of the vaso-motor function of the sympathetic. The irritation thus established would seem also to have a secondary influence upon the sympathetic, resulting in the visceral disturbances that constitute so important a feature of the disease. The well-known laws of reflex action suffice to explain the effects of pressure, percussion, etc., and the aberrations of sensation and motility.

The *diagnosis*, after rejecting all cases which fail to present the vertebral tenderness, lies between this affection and the other spinal diseases which in their earlier stages may resemble it—chronic myelitis, meningitis, and congestion. An early and correct diagnosis is of the greatest moment as a guide to treatment, the indications for which in spinal irritation are quite the reverse of those in the other affections. In a matter of such vital consequence, we shall not attempt the imperfect abstract our limits would compel, but refer the reader to the paper itself.

The *prognosis* is favorable, all cases being alleviated by persistent treatment, and nearly all being ultimately cured.

Treatment.—The indications are four: "1. To remove the cause. 2. To improve the general tone of the system. 3. To increase the amount of blood in the spinal cord, and improve the nutrition of this organ. 4. To set up a counter-irritant action in the vicinity of the disordered region of the cord. The first indication speaks for itself. The second is met by tonics (as iron, quinine, zinc, cod-liver oil), and especially by alcoholic stimulants. The third, by strychnia, phosphorus, phosphoric acid, opium, heat to the spine, the recumbent posture, and above all the direct (galvanic) current

scientifically applied. (The induced current also is of service, applied to the affected muscles where paralysis is present.) Of counter-irritants, blisters and dry cups are to be preferred to antimonial ointment. Wet cups or leeches are inadmissible.

The paper concluded by reports of illustrative cases.

Dr. Chadsey had, in his early practice, seen much of what he had considered to be spinal irritation, occurring chiefly among a hardy laboring population in a northern county, and commonly traceable to exposure to cold. He had recorded upwards of one hundred cases. His treatment has been heroically antiphlogistic, with antimonial ointment to the spine, and had given satisfactory results. In three fatal cases post-mortem examination had shown congestion of the meninges of the cord under the points of tenderness. Therefore, while recognizing the excellence of Dr. Hammond's description of the disease, he could not agree with his pathology or his treatment. He could not see how blows and strains, which had been mentioned among the exciting causes, could produce spinal anæmia; and if the morbid condition were, as he deemed it, one of hyperæmia tending to inflammation, then tonics were the last thing to be given, and local blood-letting should prove of the greatest service. Electricity he had found of no use at the onset of the disease, but very useful after local depletion. In corroboration of his remarks he related several cases.

Dr. Fordyce Barker.—There is fashion in diseases as in dress. The most of us will recollect that, twenty-five years ago, spinal irritation was exceedingly common; but of late it has gone so completely out of vogue that, when I saw the subject of the paper announced, I thought it demanded a good deal of moral courage to present it. A few years since, when I gave the diagnosis of spinal irritation, in a case to which I had been called in consultation, the attending physician replied, "Oh, yes; that does very well to tell the family; but what do you really think of the case? For 'spinal irritation,' you know, is only a phrase to cover ignorance." But I do believe in it, having often met with it pure and simple, as well as often complicating other affections. And the paper of to-night I regard as especially timely, in recalling attention to a class of diseases too often misunderstood, if not utterly ignored.

Dr. Hammond has given us a very clear diagnosis between spinal irritation and organic diseases of the cord. I wish he had gone further, and shown how to distinguish it from hysteria, chorea, and nervous asthenia. Where spinal irritation was associated with one or other of these disorders, I have sometimes found it very difficult to decide which was the primary affection. But the results of treatment may often help us. I was consulted by a lady who had been subject to chorea of a severe character for a couple of years, and had been under most excellent treatment for that disease, but without gaining relief. I found dorsal and cervical tenderness, and directed treatment to the spinal irritation, when that for the chorea became effective. Another lady, the mother of three children, had been unable for a year and a half to carry the food to her mouth. The slightest cause, such as an unexpected noise or a sudden emotion, would throw her into terrible choreic and hysterical convulsions. Spinal irritation was diagnosticated, and its treatment had the same happy result as in the former case. I have met with several instances where spinal irritation manifested itself especially in connection with the chest. In one which I recall, a lady was harassed by a peculiar cough, sounding like the bark of a small dog, and absolutely incessant, day and night. It was, of course, very distressing; and when I saw the patient she was in a state of great nervous prostration. Dr. Horace Green had removed a portion of the tonsil, with slight temporary relief. Other treatment in great variety had been instituted, yet the cough still continued; but when I treated her for spinal irritation a perfect cure was the result.

Among the organic diseases which, like hysteria, spinal irritation is apt to simulate, I have found uterine diseases the most frequent, next those of the digestive system, and then those of the respiratory. I have never seen it counterfeiting organic disease of the heart or brain. This relative frequency may probably depend upon the class of practice to which I confine myself. Every year I meet three or four cases of this kind: A woman has been under treatment for uterine disease—treatment which I know has been perfectly adapted to such disease, if she had it. Upon examination I find that the uterine disease either has been cured or has never existed; but the symptoms continue. I find general exhaustion and depression, with tenderness over the lumbar vertebræ; and treating the case accordingly, I find the treatment successful. I was called by the mother to see a boarding-school miss of sixteen, supposed to have some uterine affection. She suffered from pain in the back, irregular menstruation, dysmenorrhœa, with bearing-down pains, headache, loss of flesh, loss of interest in life, and so forth. I made up my mind that the case was one of spinal irritation, and on proceeding to direct the treatment, found that I had quite lost the mother's confidence by not proposing a vaginal examination. The young lady, she said, had been schooled to meet the occasion, and was fully prepared for anything that might be necessary. I left her still distrustful, but am happy to say that her confidence was restored by the effect of the treatment.

I was surprised at the great preponderance of females among Dr. Hammond's cases, although this is quite as great in my own practice. But I have seen as striking examples of the affection in men as in women—one in particular. A gentleman had been engaged in active business pursuits, partly in this city and partly in London, until the age of forty-five, when, with a large fortune, he retired from business, residing here, and living generously as a gentleman of leisure. He was a vigorous, hearty man, weighing one hundred and eighty pounds; and when, some three years after, he had an attack of pneumonia, he told me it was the first day's illness and almost the first pain he had ever experienced. At the age of fifty he married, and I lost sight of him. A few years later, after a residence in Europe, he came to me a complete hypochondriac, whom I should never have recognized as my old acquaintance. For nearly two years he had been falling away, till he weighed but a hundred and twenty pounds. He had no appetite, constant nausea, headache, and sleeplessness. He had lost all interest in society, in reading, in the company of his friends, even in his money, and was the victim of chronic melancholia, with a tendency to suicide. Among the many physicians he had consulted was a friend of mine in London, especially eminent as an author in digestive disorders. After six weeks' observation of the patient this gentleman sent him to me, with a letter expressing his conviction that the case was one of malignant disease of the stomach. The man had been put upon the blandest diet and charged to cut off all stimulants, although he had been used to free living. Under this regimen he had been getting worse and worse. A most careful examination gave me no conclusive evidence of organic disease of the stomach of any kind; but it did disclose excessive tenderness and constant pain in the lower cervical and upper dorsal regions

of the spine. I commenced counter-irritation over those parts, compelled the patient to take strong beef-tea and other nutriment, gave tonics and stimulants. In four months he had gained over forty pounds, and he is now in perfect health.

During the great financial fluctuations incident to the late war, I quite frequently met with this affection among the speculators of Wall street, who were taxing their strength to its utmost by the feverish excitements of their life, and sustaining themselves by drinking largely, without intoxication, until the inevitable reaction came.

In the general principles of treatment enunciated by Dr. Hammond I fully concur. With regard to matters of detail I may venture to add a few suggestions. The high estimate set by the Doctor upon counter-irritation, and especially upon blisters as the best form of it, entirely accords with my own experience. But to ladies the idea of a blister is repulsive. Blisters, like spinal irritation, have gone out of fashion. So, not to injure the *morale* of my patient, I avoid the obnoxious word, and speak of the medical treatment of the system by applications to the spine. This, with me, consists in the rubbing on of cantharidal collodion, strengthened and rendered anodyne, if necessary, by the addition of a drachm of cantharides and a couple of grains of morphia to the ounce. I tell her that this may occasion some little elevation of the cuticle, with a watery fluid beneath it, which can be let out, and all will go on well. No more does it answer to speak to ladies of "spinal irritation," for the imagination of a sick woman is marvellous, past all comprehension, and the words would be a spell of power to conjure up visions of Pott's disease, paraplegia, and every other horror.

As to tonics, I find that commonly these patients do not well bear quinine and iron; that these drugs are likely to cause cerebral congestion and headache. Men of my age are very apt to ride hobbies, and I confess that there is one tonic which I am wont to use almost exclusively in such cases, and which I think free from these objections. That is the sulphate of bebeerine, of which an ordinary young lady can take from three to five grains thrice a day—the latter being my average dose. Alcohol I do not use in this affection. If given in the earlier stages, the patients complain that it makes them dull and sleepy, that their arms hang like lead, and that, instead of supporting, it only weakens and depresses them.

Dr. Austin Flint, Sen.—None but those whose reminiscences extend back twenty-five or thirty years can appreciate the service rendered to practical medicine by the first writers upon this subject. For, up to that time, the notion prevailed that nearly every disturbance of the internal organs was the effect of inflammation; all the affections now known as functional were regarded and treated as inflammatory. These writers, by directing the attention of physicians to the spinal cord, and to the employment of tonic and invigorating treatment, did much to change the practice of the day.

At that time, under the name "spinal irritation," or, as I chose to call it, "spinal affection," as involving no hypothesis concerning its nature, there seemed to fall a group of cases marked by certain features common to all—tenderness of the spinal column (exceedingly common, but not universally present), susceptibility to cold, coldness of extremities, indisposition to physical or mental exertion, and undue fatigue after either, mental depression, sometimes amounting to melancholia. These symptoms belonged to all the cases, and, in addition, there were those connected with the various organs. But the name spinal irritation fell more and more into disuse; and though for a considerable time I spoke of spinal affection in my lectures, I at last ceased to do so. Why is this? I recognize to-day the same group of cases which I then recognized. But I have been for some time past gradually coming to regard these cases as cases of general anæmia, considering the cord to be in a morbid condition, but a condition due to the altered state of the blood. I have been the more confirmed in this view from knowing that profound anæmia may exist, and yet present none of its superficial signs; an anæmic patient, for example, may have a beautiful color in the face. (I think, however, that anæmia, where present, may always be detected by the venous hum.) But although I have supposed the anæmia of the cord to be dependent, not upon a deficient supply of blood to this organ, but upon the impoverished character of the blood, yet on this point I should regard Dr. Hammond's opinion as superior to my own.

The adoption of these views has led to a change in my practice. Twenty or thirty years ago I resorted to counter-irritation, especially by means of tartar-emetic ointment. I have now come to look back on those days with a feeling of regret that so much needless suffering should have been inflicted. Yet possibly we may be going too far in the opposite direction. Counter-irritation by dry cups and other of the less severe means may be very useful. But looking upon the essential condition as one of general anæmia, I have found my treatment addressed to this very successful in removing the symptoms of the spinal affection. I have no doubt, however, that the addition of electricity, as proposed by Dr. Hammond, would be of great service. One word as to chalybeates. I think these remedies often have their value underrated from failure to persist in their use. I think that less depends upon the amount of iron given than upon the length of time for which it is continued; and that if this be borne in mind, and the chalybeate remedies thoroughly tried, they will be found to give the greatest satisfaction.

Dr. Rockwell related a case of general irritation of the cord, in a lady of thirty years, who suffered from cough, palpitation, dyspnœa, pain in upper and lower extremities, and in the latter diminished temperature and partial paralysis. Concerning the treatment of the affection by electricity, while recognizing the value of the galvanic current, especially when applied to the sympathetic, the speaker desired to bear witness to the benefit derivable from the faradic current alone, the negative electrode being placed at the feet, and the positive being passed along the spine.

Dr. Messenger had found muriate of ammonia serviceable in two cases.

Dr. Hammond had no doubt of its value, which a recent article in the *Practitioner* had clearly shown.

In reply to Dr. Chadsey, he said that the cases in which the Doctor had found hyperæmia of the cord upon post-mortem examination, were undoubtedly not cases of spinal irritation. This was almost never fatal, while nine-tenths of the cases of spinal congestion ended in death. If we were to judge only by the pain, it might be difficult to distinguish the one from the other; but the history of the case, and certainly a fatal termination, would settle the question.

The galvanic current was a weapon that would cut both ways, and must be used discriminatingly if we would do good with it, and not harm.

With reference to the predisposing influence of sex, his own practice was, like Dr. Barker's, more among women than men, for they were far more subject to nervous diseases in general. He thought they were more liable than men to anæmia; but the opposite

condition, congestion, appeared to be more frequent in men than in women, probably because their pursuits led to greater exposure.

The diagnosis from hysteria he had disposed of in the paper, by expressly excluding all cases which did not exhibit the spinal tenderness. If this tenderness were present, the case, though it might manifest the phenomena of hysteria, was primarily one of spinal irritation, and to be treated as such.

With regard to stimulants, his own experience was decidedly in favor of alcohol, in its stronger forms, as the best of all remedies for this affection. And the patients would bear it in large amount. A weak girl would drink half a tumbler of brandy and water, and feel it no more than a strong man. He had found that these patients did not bear iron well at first, but he had employed sulphate of manganese, in doses of five and ten grains, with good success.

The President was glad to hear Dr. Flint's remarks in deprecation of the more violent counter-irritants. He remembered the case of a lady of the greatest pluck and endurance, long a sufferer from spinal irritation. Other remedies failing, he had finally proposed a camphor moxa, which she had gladly accepted; but it did no good. There lay also upon his conscience the application of nitric-acid issues over the spine, in two or three cases, with no better result. He had since abandoned these powerful irritants, leaving their indelible scars, and confined himself to the tincture of iodine, applied as often as requisite.

In searching for the cause of this disease we had before us the patent fact that it is most frequently seen in young women, between the ages of fifteen and twenty-five. This was the most active period of woman's ovarian life; and the time must probably come when the relation between these two facts would be better understood.

Dr. Bulkley added his testimony to the value of tincture of iodine.

Dr. Peaslee had found those cases of dorsal spinal irritation, attended with dyspeptic symptoms, almost invariably accompanied by general anæmia. Such cases were not uncommon in females. There was one preparation of iron which commonly agreed well with them, if the liver were kept active, say by rhubarb and hyd. cum creta. This was the iron by hydrogen, which might be given in doses of two grains, combined with a grain or a grain and a half of extract of hyoscyamus. After trying this for a time, the extract of gentian might be substituted for the hyoscyamus; and after that, some other preparations of iron would commonly be well borne. In connection with this treatment he used blisters where the patient was not extremely anæmic, or the reverse of these, belladonna plasters, where the anæmia was excessive. Twenty-five years ago he had seen much of the treatment by tartar-emetic ointment, and its results were so bad that he had scarcely ever employed it. He had seen patients scarred over the whole length of the spine with this ointment, who turned out to have only uterine disease or displacement, till he was almost forced to the conclusion that spinal irritation was a myth, and that the term should be discarded. But other cases occurring in connection with uterine disease had soon convinced him that they were better characterized by this name than by any other. The diagnostic mark was that pointed out by Dr. Hammond—tenderness on pressure over the spine.

The Society adjourned.

Ipecac in Vomiting.—The *Practitioner* calls for more evidence in regard to the action of small doses of ipecacuanha in arresting obstinate vomiting.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, January 12, 1870.

Dr. Lewis A. Sayre, President, in the Chair.

INTRA-ABDOMINAL TUMORS RETARDING LABOR.

The Committee on Microscopy reported the intra-abdominal tumors of fœtus presented by Dr. Finnell to be fibro-cystic degeneration of the kidneys. The supposed amyloid liver exhibited by the same gentleman proved to be fatty degeneration.

RARE FORM OF FRACTURE OF RADIUS.

Dr. Buck reported a rare form of fracture of the radius. The lesion, instead of producing the usual "silver-fork" deformity, gave rise to a displacement entirely lateral. The lower fragment overriding to a certain degree the upper, caused the articular surface of the radius not only to look downwards but a little backwards. The hand was deflected to an angle of 45°, giving a very great prominence to the lower extremity of the head of the ulna. This was the first instance of the kind that he had seen in a recent injury, and there was but one other that he knew of, a plaster cast of which has been preserved in the Museum of the New York Hospital. In the latter instance the parts had united with the original deformity. In his case the fragments were kept in position by means of a pistol-shaped splint applied to the forearm and hand.

A third specimen Dr. Finnell presented was a heart removed from the body of a man thirty years of age, who was known to have suffered from heart disease for a number of years. Death occurred suddenly. At the autopsy an hypertrophied heart, with dilatation of the left ventricle, insufficiency of the aortic and thickening of the mitral valves were discovered. The cordæ tendineæ were in some places two inches in length. The organ weighed twenty-four ounces.

Dr. Janeway was of the opinion that the aortic insufficiency explained the dilatation.

Dr. Shrady asked if the patient was otherwise in a good condition, and, being answered in the affirmative, remarked that it offered an explanation for the long tolerance of the disease.

A second specimen by Dr. Finnell was a small-sized cyst of the broad ligament, with a very long and slender pedicle, and with no adhesions, removed from the body of a woman twenty-five years of age, who died of intemperance. The case would have been a very favorable one for ovariotomy.

ENTERO-COLITIS.

Dr. Lewis Smith exhibited two specimens of entero-colitis: one was removed from a child aged ten months, who had suffered from diarrhœa for a month or more, and who just before death was seized with bronchial and head symptoms. The surface of the brain was occupied by serous effusion, as was also the lateral ventricle, the sinus containing good-sized clots. The bronchial tubes were more or less filled with an effusion of muco-pus, and there was a small patch of static pneumonia on the posterior part of the lower lobe of right lung. The whole extent of the colon was injected and thickened. On reaching the ileum the evidences of the diseased action were disappearing.

The other specimen, presenting much the same appearances, was removed from a child aged five months, who had diarrhœa for six weeks. In that case, also, there was the usual cerebral complication, limited static pneumonia, and fatty liver.

SUPPURATIVE SUBCELLULAR INFLAMMATION OF STOMACH.

Dr. Loomis presented the stomach of the late Dr.

Randall, and gave the following history of the case :— Dr. Randall was never a robust individual. About three years ago he had an attack of hæmoptysis, followed by cough, loss of flesh, and the ordinary rational signs of phthisis. I examined his lungs and found evidences of broncho-pneumonia at the apex of the left lung posteriorly. After a few months, however, he gradually regained his ordinary health, and all the physical evidences of pulmonary disease disappeared. About a year ago, while attending a case of confinement which terminated in the delivery of a still-born syphilitic child, he poisoned his finger. The sore was followed by enlargement of the glands of the axilla and neck, attended with suppuration. These symptoms gave place, in their turn, to an eruption, which, to say the least, was suspicious, and naturally gave him a good deal of anxiety. During the last few months of his life he was engaged in preparing a map of the district in which he was health inspector, and in its preparation he worked for hours, bending over the edge of a table which pressed upon the epigastrium.

On Tuesday, Dec. 21, he began to complain of pain in the epigastrium, which he ascribed to some baked beans and pork that he had eaten at a restaurant. This pain increased in severity, and during the day he vomited once or twice material composed mostly of undigested food. During the night he vomited almost constantly, the pain being all the while intense. On Wednesday the vomiting continued, and the pain became so severe and prostrated him so much that he was unable to leave his bed. The physician who was called in applied some half a dozen leeches over the epigastrium, and put him fully under the influence of morphine, giving him a sufficient quantity by hypodermic injection to relieve his pain. During the whole of Wednesday the vomiting continued, at least he rejected all fluids taken upon the stomach, and the pain, although not so intense as before, was very severe and prevented any motion.

I saw him for the first time on Thursday morning, perhaps a little after noon on that day. The vomiting was still persistent, and the pain in the epigastrium was still severe. His pulse was one hundred and thirty, and feeble; his countenance was anxious and slightly tinged with yellow; his tongue brown and dry, and sordes were upon his teeth. The pain was situated at the upper portion of the abdomen, and pressure gave him but little inconvenience until you passed above the navel, when it became much increased. His position in bed was that of a person suffering from peritonitis. His mind was perfectly clear, and he gave me a very clear and connected account of his sickness. His bowels had been moved by a calomel purge the day before. His urine was normal in quantity and character. From the character of his pulse, the seat of his pain, and the expression of his countenance, I suspected peritonitis. I proposed that he be treated hypodermically by the hydrate of chloral in sufficient doses to relieve pain, and, if possible, reduce his pulse. Only one dose was given, and the physicians in immediate attendance observing some peculiar contortions of his countenance, which they supposed to be due to the effect of the chloral, did not dare to push it, and used morphia instead, only, however, to a limited extent. I recommended that he be nourished by brandy and milk injections, which having been already given, were accordingly continued.

On Friday morning he was sinking very rapidly, his pulse was 140–150, varying somewhat at different times. His countenance was still anxious, and his mind was a little wandering, although he answered questions readily and correctly. The typhoid symptoms were more marked than the day before. There was no tympanitis of the abdomen, but the tenderness over the epigastrium was as marked as at the first visit. The vomiting still continued. After the rejection of the contents of the stomach some bilious matters would be occasionally thrown up. During Friday night he became delirious, having short intervals of consciousness, however. His pulse became more and more frequent, and when I saw him on Friday his capillary circulation was very imperfect, there being marked blueness of the nails. The respiration was forty, but hurried. In the course of the night he had a cold perspiration, and in a few hours afterwards, on Saturday evening, died as patients ordinarily die with peritonitis.

The autopsy was made eighteen hours after death. The body was badly nourished, being quite emaciated. The abdomen was non-tympanitic. On laying open the thoracic cavity, the heart and all the other contained organs were healthy, except a few old pleuritic adhesions at the apex of left lung, and scattered calcareous deposits.

On laying open the abdominal cavity the intestines were found glued together by recent fibrinous exudation, the sub-peritoneal vessels were very much injected, so as to give a general redness over the whole surface. Over the left lobe of the liver was a layer of yellow lymph of nearly half an inch in thickness. On raising up the liver the stomach was found covered over with the same exudation. There was no serum in the abdominal cavity, but the fibrinous exudation extended down into the pelvic cavity. In a few words, there were evidences of general peritonitis of a very acute type.

The stomach was found distended, its two orifices were tied, and it was removed entire. Its peritoneal surface was like that covering the intestine. On laying open the organ it contained a pint or more of fluid of a character that was ejected a short time before death. I was struck, in the next place, with the unnatural thickness of the coats of the stomach, which were five or six times thicker than natural; more especially was this noticed in the neighborhood of the pylorus. In the substance of its walls, between the mucous and external coats, was a thick deposit of a whitish material, which resembled the gross appearances of fibrine and pus. This fibro-purulent exudation occupied all of the submucous cellular tissue, and in some places the muscular coat also. It varies in thickness as you pass towards the cardiac orifice. The point of greatest thickness is two inches from the pylorus, in the greater curvature. The free surface was unchanged, excepting where punctate injections showed themselves. All the changes that had occurred were confined to the submucous cellular tissue; the appendix vermiformis was normal. It is a specimen, then, of suppurative subcellular inflammation. The submucous coat was the primary seat of the disease, and the inflammation extended from this to the peritonæum, and gave rise to the fatal peritonitis which terminated his life. This is, perhaps, one of the rarest specimens of disease that has been presented to this Society for a long time. I find only a meagre account of this form of disease noticed by the authorities, and Dr. Brinton is the only one who gives a really good description of it.

Dr. Shrady, bearing in mind some remarks made by Dr. Sayre at a previous meeting in reference to the supposed origin of abdominal tumors in billiard players, as the result of pressure against the table, thought it probable that an equal relation between cause and effect might be made out in this case.

Correspondence.

THE WORK OF THE AMERICAN MEDICAL ASSOCIATION.

To the Editor of the Medical Record.

Sir—Will you allow a "country doctor," who was a delegate from his State to the last meeting of the American Medical Association, a little space in your columns?

I went to that meeting expecting much, and I watched its proceedings anxiously, realizing as heartily as any one the influence for good or evil which such an assembly of medical men could exert upon the profession and upon the people.

I heard the subject of medical education discussed, and was compelled to recognize the scarcely disguised jealousy between the representatives of some of the schools. I heard the attack upon, and the rejoinder by, the delegate from Michigan. I heard the result of years of thought and discussion upon this subject of education summed up in a panacea (worthy of Mrs. Partington, and as efficient as her broom was against the tide), which was to compel a minimum of college fees of $120, and heard said panacea accepted and adopted by the Association with scarcely a dissenting voice. Now, as the Association is evidently chiefly managed by and in the interest of the schools, it is but fair to conclude that the panacea originated with some of them, and it was more than intimated, by interested parties, that its object was to crush out the smaller schools, especially at the West. I heard the matter of petitioning Congress to reform the standing of the Navy Med. Department discussed, and dropped upon the solicitation of the delegate from the Navy. I saw the sections thinly attended, and found that the general excuse for non-attendance was, that the labor of listening to long and tedious papers was not rewarded by the amount of information obtained. And I saw in the hands of the permanent secretary matter enough for several volumes of transactions, the product of this meeting alone.

I confess to a feeling of sincere disappointment after the sessions were done—disappointment in finding that the Association was not doing the work which it ought to do; that many of the projects offered for its approval, and adopted, are not practicable, and that too much time and talent are wasted from perverted direction of effort.

I came home, and upon reference to the recent catalogues of some of the offending colleges, I find the Association's action unheeded, and in one journal, at least, that action is ridiculed, and, with a covert threat, rejected. Here, too, is a form of petition to Congress, scattered broadcast from Philadelphia, in the navy matter, and which the facts as published in the public prints seem to justify, and which, I doubt not, will be generally adopted, and the work of the Association done for it by local organizations.

Now all that was done at New Orleans seems but poor payment for the long journey which the majority of delegates took to get there. Even social entertainment was at a discount; for though many of the delegates brought their wives or their female relatives, not a single Southern lady met them at the reception given to us. I do not choose to discuss now the reasons for the facts which I have stated, and which are but a few of the facts bearing on this subject, and in the same direction, which this meeting furnished; I have stated them (account for them as you may) to ask if they do not justify a candid inquiry, not only by the faculties of colleges and city physicians, but by the *mass* of the profession, the physicians of the county and smaller towns, whether the American Med. Association is doing the work for the profession at large which it was designed to do; whether it is not turned aside from its legitimate purpose to serve as an arena for the quarrels of the schools, and for the exhibition of individual claims, not merely for professional but for public regard; and, above all, whether the profession, as a whole, is justly represented or benefited at all?

"Agricola."

Red Wing, Minn.

THE HYDRATE OF CHLORAL.

To the Editor of the Medical Record.

Sir—I communicate to you the two following cases, in which I tried the hydrate of chloral with the best effect.

Mrs. ——, æt. 18 years, primipara. Had no previous sickness except, two years ago, a severe attack of intermittent fever, which left her somewhat anæmic. Confined on the 25th of November, confinement easy, and childbed normal up to the 10th day (December 4th), on which mania set in; was treated up to the 11th December with sulph. morph., which she took internally and by hypodermic injection, without the least impression. Had no sleep all the time except once, for three hours, after inhaling chloroform 3 j. Bromide of potass. produced excitement. December 11th, gave at 5 o'clock P.M., internally, hydr. chloral gr. xv., and followed it up by gr. vii. at 9 o'clock P.M. Had 17 hours' sleep out of 24 hours. Before giving the preparation the pulse was 100, the tongue rather dry, pupils contracted, skin pale and cool, patient very restless, talks constantly, mind wandering. After the first dose of the chloral, the patient slept three and a half hours, only waking up to use the chamber and to take some milk punch. After the second dose she slept four hours without interruption, woke up to take nourishment, and continued to sleep.

Dec. 12th. 6 o'clock P.M. Pulse 90, fuller; skin moist; temperature normal. Gave again gr. xv. of the hydrate of chloral.

Dec. 13th. Took four doses of the preparation, two of gr. xv., and two of gr. vii. Continues to sleep most of the time, but is fully sensible when she wakes up. Pulse 80; pupils normal; asks for nourishment.

Dec. 14th. Greatly improved in general appearance; the talking is more quiet; pulse 80, full; tongue moist and clean. Took three doses, two of gr. xv., one of gr. vii.

Dec. 15th. Three doses of gr. xv. Improvement continues.

Dec. 16th. Took four scruples to-day; sleeps most of the time.

Dec. 17th. Took the same quantity.

Dec. 21st. Has taken one ounce of the preparation altogether; no disagreeable symptom appeared at any time; patient is fully sensible and rational; all functions normal.

Miss ——, 25 years of age, had paronychia, which was opened. Five days thereafter I saw her again; erysipelas had set in all over the forearm.

The next day, Dec. 18, patient got delirious and very violent. Ten drops of Majendie's solution, hypodermically injected, had no effect. Gave her 20 drops of the same, internally, an hour thereafter, without quieting her. Pulse 100, very small; skin cool; face flushed; patient very noisy. At 6 o'clock P.M., gave hydrate of chloral, gr. xv.; half an hour thereafter she fell asleep and slept up to 3 o'clock A. M. the next morning.

Dec. 19th. Patient is more quiet; pulse 100; tongue

coated; erysipelas up to the middle of arm; slept quiet all day; in the evening more noisy; gave again hydrate of chloral gr. xv.; slept all night.

Dec. 20th. Patient fully quiet.

I omitted all particulars in both cases, as my only object in reporting these cases is to record the effects of the preparations. Respectfully,

Dr. S. TELLER.

232 West Twenty-eighth street, New York.

A NOTE ON THE HISTORY OF RELAPSING FEVER IN THE UNITED STATES.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—Having seen a number of cases of the kind of fever now prevailing in this city, I am satisfied that it is essentially the same which I observed and described twenty-five years ago.* In June, 1844, a ship arrived at Philadelphia from Liverpool with Irish emigrants, amongst whom there had been some sickness during the voyage. Fifteen were sent to the Philadelphia Hospital, and admitted into the medical wards under my charge. They were suffering from continued fever of a kind different from any that I had then seen. I thought that I recognized, by the published histories, the kind then prevailing epidemically in Scotland and England, and which had appeared in those countries in 1843. The correctness of my conjecture was soon established. In all these cases the access was sudden, with severe headache, vomiting, muscular soreness and joint-pains, rapid pulse, hot skin, a moist tongue with a creamy grey or yellowish coating, and red tip and edges, (though in a few cases the tongue and mucous membrane of the mouth were quite dry for several days), enlarged spleen, no constant intestinal troubles, and no eruption. In all there was much debility from the outset, and the face had a peculiar bronzed tint, like that of persons suffering with malarial poisoning. About the seventh day defervescence happened, with abundant sweats; the appetite became good, the expression was natural, and the patient apparently entered upon convalescence, though still complaining of muscular weakness, and the face was of a dusky yellowish hue. Near to the fourteenth day a second paroxysm suddenly occurred, in some cases with all acuteness of the first, and lasting for five or six days, whilst in others it was slight, and passed off in thirty-six or forty-eight hours. So far as I know, there were no instances of a second relapse. I saw no sequelæ, for the reason, perhaps, that patients left the hospital very soon after the establishment of the second convalescence. None of the house physicians, or nurses, or other patients contracted the fever, and the only evidence I had of its possible contagiousness was the fact, that two sisters, for some years resident in Philadelphia, being admitted with the fever, and whose brother had gone from the ship to their house, and there been taken ill. Other steerage passengers were at the time in the hospital, complaining of chills, sweating, aches, headache, debility, &c.; but none of these were ever fairly down with the fever.

There were a few cases also in the Pennsylvania Hospital, under the care of the late Dr. Wm. Pepper.

Professor Austin Flint, in his *Practice of Medicine*, states that Dr. A. Dubois, of New York, reported a few cases which he had observed in 1848, and refers as authority for his statement to the *Transactions of the American Medical Association*, vol. ii. Now in volume i. of the *Transactions*, page 373, there is a paper by Dr. Dubois on "Ophthalmia post-febrilis, a severe form of Inflammation of the Eye, following Typhus Fever, as it appeared in New York in 1847–48;" and in June of the same year essentially the same paper was published in *The Annalist*. In these Dr. Dubois describes merely the eye sequelæ, which he correctly says were very like those which followed the kinds of fever prevalent in Dublin in 1826, and described by O'Brien, and the Edinburgh and English epidemic of 1847–8, of which well-written histories had been given by Drs. Henderson, Rose, Cormack, and others. Dr. Dubois does not give a description of his own knowledge of the New York fever; he does not say that he had seen any cases, though he does attempt to show its identity or analogy with the Irish and British kind of 1826 and 1843–4, and that from the likeness of some of the post-febrile symptoms; but he incorporates in his communication a note from the late Dr. Swett, then one of the physicians of the New York Hospital, and which simply states facts. Dr. Swett's description of the kind of continued fever then prevalent in the city is very far from conclusive as to its identity with the relapsing fever then epidemic in Great Britain. He says that "*the duration of the fever was from two to three weeks*," not from five to seven days; and that "relapses were by no means infrequent," not that they were constant. On comparing carefully the clinical histories of the British and New York cases, little or no parallelism will be found, and no doubt will be left that the kind of fever described by Dr. Swett as the prevalent type of continued fever in New York in 1847–8 was not the true relapsing fever of 1843–4 of Scotland and England, or as it has since prevailed there, or like the cases I treated in 1844, or of the London fever of 1869–70, or of the kind now more or less epidemic in this city. I have been permitted to examine the medical case-books of the New York Hospital for the years 1847–8, and the cases of continued fever there reported are unquestionably typhus, and not relapsing fever.

MEREDITH CLYMER, M.D.

135 LEXINGTON AVE., NEW YORK, Feb. 2, 1870.

* Fevers; their Diagnosis, Pathology, and Treatment. By Meredith Clymer, M.D. Philadelphia: 1845, p. 99.

Medical Items and News.

THE AMERICAN MICROSCOPICAL SOCIETY held their annual meeting at the Mott Memorial Library Rooms, No. 64 Madison Aveuue, January 25th, for the purpose of organizing and electing officers under the new charter, recently obtained.

OFFICERS:—*President*, Dr. J. H. Hinton; *1st Vice-President*, Mr. Robert Dinwiddie; *2nd Vice President*, Mr. T. F. Harrison; *Cor. Secretary*, Dr. S. G. Perry; *Recording Secretary*, Dr. J. S. Latimer; *Treasurer*, Mr. E. C. Bogert; *Librarian*, Dr. John Frey; *Curator*, Mr. S. Jackson. *Committee on Nominations:* Dr. D. H. Goodwillie, Mr. R. A. Witthaus, Mr. J. W. S. Arnold.

NEW YORK DISPENSARY FOR DISEASES OF THE THROAT AND CHEST.—This institution, incorporated December 11th, 1869, is now established at No. 1304 Broadway, between 35th and 36th Streets, near the junction of Broadway and Sixth Avenue, and directly opposite the Orthopedic Dispensary. Its particular object is to furnish gratuitous relief for indigent persons, without discrimination. Dr. A. Ruppaner is the attending physician.

DR. J. W. SOUTHACK.—At a meeting of the New York Pathological Society on Wednesday evening, January 12, 1870, the following preamble and resolutions were adopted:

Whereas, In the death of Dr. J. W. Southack this Society feels that it has lost a member whose character, energy, talents, and acquirements had already proven that, had life been spared, he would have attained an eminent position in his profession, and in that branch of it which this Society investigates.

Resolved, That whilst we recognize Providential ordering in this sad event, yet we mourn his loss as that of one who seems scarcely able to be replaced, and as one which this Society has special reason to regret.

Resolved, That we tender to his family in this bereavement our sincere sympathy.

Resolved, That these resolutions be published in the medical journals of this city, and that a copy of them be presented to the family.

LEWIS A. SAYRE, *President.*
GEO. F. SHRADY, *Secretary.*

DEATH OF PROFESSOR GEOGHEGAN, OF DUBLIN.—The celebration of the Christmas festival in Dublin has been somewhat marred by the unexpected death of Dr. Geoghegan, one of the first existing authorities on forensic medicine, of which subject he held the Professorship in the Royal College of Surgeons in Ireland. To his rank and position as Medical Jurist there exists in Ireland no worthy successor, and the College has in him lost one of those members who have created and added to its prestige throughout the world.

HEALTH OF THE EMPEROR OF RUSSIA.—The disease from which the Emperor of Russia is suffering is hypochondriasis—a malady which is hereditary in the imperial family of Russia, and which is extremely difficult to combat. It has thrown a gloom over his existence. It is said that the Emperor, whose robust appearance and fine aspect of health are considerably altered, often refuses food, and shuts himself up from all outer communication, and from all the social enjoyments which he used formerly to seek.—*Lancet.*

SUBCUTANEOUS SURGERY.—Mr. William Adams has divided subcutaneously the neck of the thigh bone within the capsule ligament, by means of a fine saw. This is a great triumph of subcutaneous surgery, as the case is doing well.—*Med. Press and Circular.*

THREE NEW ANÆSTHETICS.—Dr. Rabuteau (*Gazette Hebdomadaire*) describes three new anæsthetics with which he has made numerous experiments, viz.: Bromoform, Bromal, and Iodal. Bromoform resembles chloroform, but appears to possess some advantages over it in producing complete anæsthesia without causing profound sleep. Bromal differs from chloral in the substitution of bromine for chlorine. Its action in animals is similar to that of chloral. Iodal is also a powerful anæsthetic, but in moderate quantities it causes convulsions and death, producing congestion of the brain and spinal cord.

SWEDISH LADY DOCTORS.—The "Carolinska Institute" in Stockholm has expressed its willingness to admit female students to its lectures in the public hall. Instruction in anatomy will be given to ladies separately. Clinical lectures also will be given separately to female students, but the Carolinska Institute requires that those who join this class shall possess the same preparatory knowledge as the male students—viz., a degree of knowledge corresponding to the so-called university certificate of having passed a successful examination in medico-philosophy.

FLORIDA THE PLACE FOR INVALIDS.—Daniel G. Brinton, M.D., of the *Med. and Surg. Reporter*, in his "Guide-Book of Florida and the South," informs us that the most agreeable climate of the United States is on the southeastern coast of Florida. For invalids, he recommends Key Biscayno Bay, which has the best *warm* climate for the sick. The atmosphere is moist and warm in the winter months; the winds are warmed by the Gulf, and their violence lessened by the woods.

PRESBYTERIAN MEDICAL MISSIONARIES.—A medical missionary department has been established in Canton and vicinity by the American Presbyterian Mission. It has done a large amount of good the past year, treating 50,636 out-patients and 1,038 in-patients; 1,038 surgical operations have been performed, some of them of great importance. A medical class there numbers 12 scholars.

AMOUNT SPENT IN INTOXICATING LIQUORS IN N. Y. CITY.—It is estimated that sixty millions of dollars are yearly spent in New York City for intoxicating drinks. That is about seventy-five dollars for each man, woman, and child, or $375 for each male adult. The average business of each liquor dealer may be put down at about ten thousand dollars per annum. The liquor traffic exceeds the proceeds of the whole N. Y. cattle market by ten millions of dollars.

DR. RICORD.—This distinguished specialist has received a gratifying mark of imperial favor. Like M. Nélaton he has been made a Senator.

RELAPSING FEVER.—Up to the time of our going to press about two hundred and fifty cases, chiefly confined to the squalid poor, have occurred in this city. It is chiefly found in "nests," whence its progress by contagion is easily traceable. The nests have been broken up by the Health Board, and it is hoped the progress of the malady has been stopped. The mortality so far has been very slight, only three fatal cases having occurred. Nine attendants and several of the House Physicians in Bellevue Hospital have contracted the disease. The patients are now cared for in a separate pavilion.

Such has been the increase of the fever in London that Dr. Murchison says: "All the resources of this vast metropolis are taxed to their utmost to afford accommodation for its victims." The Metropolitan (London) Asylum Board have erected a temporary hospital at Hampstead, at a cost of £5,542, to be ready for occupation this month.

While speaking of the subject we will state that in the next number we propose to publish exhaustive articles on the fever, wherein our readers will obtain all the information concerning the history of the disease, etc., which they may desire.

ENGLISH MEDICAL JOURNALS IN THE WURTZBURG HOSPITAL.—The Vienna correspondent of the *Chicago Med. Examiner* informs us that a reading-room has been opened in this hospital, which is supplied with about fifty of the leading medical journals of the continent. Of this number there are only two English journals, the *London Lancet* and NEW YORK MEDICAL RECORD.

New Publications.

BOOKS RECEIVED.

PHOTOGRAPHS OF SKIN DISEASES, TAKEN FROM LIFE, under the Superintendence of HOWARD F. DAMON, A.M., M.D. James Campbell, Boston. 1870.

PERSONAL BEAUTY: How to Cultivate and Preserve it, in accordance with the Laws of Health. By D. G. BRINTON, M.D., Editor *Medical and Surgical Reporter*, and GEO. H. NAPHEYS, M.D., Chief of Medical Clinic of the Jefferson Medical College, Springfield, Mass. W. J. Holland. 1870.

VITAL RESOURCES: or, How to become Physiologically Younger and Stronger, etc. By JEROME KIDDER, M.D., New York. Published by Author, 544 Broadway.

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